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Evaluation of the Impact of Boot Camps for Juvenile Offenders

Mobile Interim Report

OJJDP

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Office of Juvenile Justice and Delinquency Prevention

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Evaluation of the Impact of Boot Camps for Juvenile Offenders

Mobile Interim Report

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Points of view or opinions expressed in this document are those of the authors and do not necessarily represent the official position or policies of OJJDP or the U.S. Department of Justice.

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EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

This Interim Report presents the findings of the Evaluation of the Impact of Boot Camps for Juvenile Offenders Demonstration project operating in Mobile, Alabama, since April 1992. The executive summary highlights the key findings from the evaluation and is organized according to the full Interim report.

1. INTRODUCTION

In July 1990, the Office of Juvenile Justice and Delinquency Prevention (OJJDP), in cooperation with the Bureau of Justice Assistance, announced and invited applications for an initiative to develop and test a juvenile boot camp program. The initiative would emphasize discipline, treatment, and work (DTW) and focus on a target population of adjudicated, nonviolent offenders under age 18. In September 1991, cooperative agreements were competitively awarded to three public-private partnerships representing Cleveland, Ohio, Denver, Colorado, and Mobile, Alabama; experimental boot camps became operational in each of the three sites approximately six months later in April 1992.

The experimental boot camps intended to provide constructive intervention and early support to a population of juvenile offenders at high risk of continuing delinquency. The boot camp programs included a highly-structured three-month residential program, followed by 6-9 months of community-based aftercare during which youth pursued academic and vocational training or employment while under intensive, but gradually reduced, supervision.

Under contract to provide evaluation services to OJJDP, Caliber Associates was tasked in the summer of 1993 to conduct an evaluation of the impact of the three boot camps for juvenile offenders. The cornerstone of the design, in accordance with OJJDP's original announcement of the juvenile boot camp demonstration project, is random assignment of eligible youth to experimental and control groups at each site.

In consideration of OJJDP's evaluation objectives, the following key questions were established to guide Caliber's evaluation of the impact of boot camps for juvenile offenders:

1. To what extent are the experimental and control groups similar?
2. What is the rate of successful completion of the boot camp intervention?
3. To what extent do experimental youth receive the services prescribed for them?

4. To what extent does each group (experimental and control) demonstrate positive signs of program impact?
 - Payment of restitution
 - Completion of community service
 - Return to school/completion of GED/vocational training
 - Employment?
5. What is the recidivism rate of the experimental group compared to that of the control group?
6. Is the boot camp intervention cost effective?

That the experimental and control groups are similar is a fundamental hypothesis of the study.

Information on experimental and control group youths has been collected over the course of the demonstration using procedures and instruments that were originally developed between April and September 1992 by a team from the American Institutes for Research (AIR) and the Institute for Criminological Research (ICR) at Rutgers University. In Mobile, four data collection instruments were used to capture data for the evaluation, including: Intake Forms, Staff Rating Forms, Boot Camp Exit Forms, and Aftercare Tracking Forms. These instruments were revised at least once over the course of the evaluation, with some instruments undergoing several revisions.

The Intake Form, which was completed on both experimental and control group youths while in detention awaiting transport to their respective placement assignment, was the responsibility of Mobile Juvenile Court personnel at Strickland Youth Center. In order to compensate for identified gaps in historical information on each youth, the Juvenile Court was also asked to supply court records, consisting of pre-dispositional reports, from which Caliber extracted supplemental data elements.

The pre-demonstration criminal history, post-placement offense information, and court involvement data required for this report were compiled by a team of Juvenile Court staff. In addition, the Juvenile Court supplied movement data, consisting of a log of original facility entry and release dates and any subsequent facility entry and release dates for both experimental and control group youths, which could be used to calculate the length of time each youth was not in a secure facility and, therefore, free in the community to recidivate. Project cost data required of the evaluation, including total two-year demonstration costs-to-date, were supplied by the Project Director of the Environmental Youth Corps.

The body of the full report includes a detailed description of project design, implementation, and operational issues over the project's history; rigorous analysis of selection, service delivery, and youth outcomes, including the critical recidivism results; and a comparative analysis of the relative costs of providing residential and aftercare services to experimental and control youth in alternate settings.

2. PROJECT DESIGN, IMPLEMENTATION, AND OPERATIONAL HISTORY

The information used to describe the design, implementation and operational history of the boot camp is derived from site visits in January and October 1994.

2.1 Boot Camp Project Design

The philosophy underlying the Environmental Youth Corps (EYC) maintains that factors contributing to a delinquent lifestyle can be overcome through military-style discipline and structure, life skills training, educational remediation, and community service.

Screening

EYC targets youth who have failed on probation. Initial screening for the pool of boot camp candidates involves the probation officers at the Strickland Youth Center (SYC), the judge, and the EYC director. If a youth is included in the selection pool, he is subjected to a battery of assessments focusing on criminal history, social history, substance use, home life, and school performance. If the youth meets all of the eligibility criteria, a probation officer recommends the youth to the EYC. If the judge concurs, the youth is then randomly assigned to the EYC or the control group by an evaluation contractor. Youth assigned to control group status are then sentenced by the judge to either probation or the State Division of Youth Services (DYS). Youth assigned to the experimental group await formation of the next EYC cohort.

Boot Camp Residential Treatment Activities

The youth experience an intense military environment during their 90-day residential stay, followed by a six-month aftercare program. The cornerstone of the EYC residential phase is the highly structured environment, involving rigorous physical conditioning, discipline, and activities to instill confidence, self esteem, teamwork and leadership. The youth adapt the military system of dress, drills, courtesy, discipline and psychological training. The program also includes a diagnostic assessment of academic skills; academic training; and life skills training focusing on substance abuse prevention, counseling, prevention of gang involvement, and employment skills.

Program success is dependent upon:

- Military Drill—The military milieu is designed to instill in the cadets the values of discipline and teamwork. For example, if one cadet does not fulfill his responsibilities, the whole cohort is punished; thus the group will collectively enforce good behavior.
- Physical Training—The training is designed to lead not only to excellent physical conditioning, but also to pride in one's accomplishments.
- Education—Once the cadet's skills are assessed, an individual treatment plan is developed. Education staff work one-on-one with the cadets at first, to help them become successful and teach them to take the initiative in their education activities. Towards the end of the residential phase, the ratio shifts so that the teacher works with five cadets, as they learn how to work independently.
- Life Skills—The life skills component concerns substance abuse prevention, the impact of gang membership, anger management, hygiene, sexually transmitted diseases, and other relevant issues facing youth.
- Counseling—Cadets meet once a week with their aftercare probation officer who builds a rapport with the cadet and determines any issues that may hinder his rehabilitation.
- Individualized Treatment Plan—Developed during the residential phase of the program and maintained throughout the aftercare phase, the individualized treatment plan is developed with input from a representative of every department (DIs, Education, Life Skills).
- Infractions—Exercise is often used as a punishment. Other sanctions include warnings, withdrawals of privileges, and work details.

Aftercare Activities

Under the original design, seven neighborhood Boys and Girls Clubs were to provide weekly educational and recreational services, tutoring, life skills, and opportunities in environmental community service. That decentralized design proved to be unworkable however, and a revised centralized program was implemented in December 1993.

While continuing many of the activities of the old design, cadets also participate in three individualized intensive sessions with the DI and one with the Aftercare Probation Officer each week. The EYC aftercare staff contact the schools attended by their cadets each week. The

transition from residential school to the community schools is considered to be a strong component of the aftercare program. The aftercare staff also contact the family every week, preferably in person.

Control Group Treatment Activities

Approximately one quarter of control youth were committed to residential programs administered by the Alabama Department of Youth Services (DYS). The majority of the control group, however, was placed directly on some level of probation. Probation is administered through Mobile County's Strickland Youth Center (SYC), which operates several programs that provide a range of treatment and education options. Members of the control group received one or more of the following services through the SYC or DYS: substance abuse treatment, educational training, vocational training, mental health services, and life skills training including anger management.

2.2 Project Implementation and Operations

The Mobile boot camp initiative selected and processed its first cohort of 13 youth in April 1992. Key events and difficulties encountered during the implementation and operational history of the demonstration project are summarized here.

Management Structure

In Mobile, the demonstration program was comprised of a public-private partnership of SYC, the Boys and Girls Club of Greater Mobile, and the University of South Alabama. SYC was responsible for the juvenile justice process, the Boys and Girls Club was responsible for fiscal oversight, design and staffing of the program operations, and the University was responsible for program planning, evaluation services and the educational and life skills program assistance. However, the public-private partnership is largely a "good faith" agreement rather than a legally binding contract. The Boys and Girls Club of Greater Mobile has gradually broadened its control over the program.

In the first year of operations, there were communication issues between the EYC and SYC probation officers, who recommend boys for the boot camp. When the relationship was strained, the volume of SYC referrals dramatically decreased and disrupted EYC operations. The relationship between these two groups has greatly improved, and staff were optimistic that it would continue to be productive.

Project Funding and Resources

With the reduction in funds from OJJDP, the state has become the central funding source.

Organization and Staffing

The Mobile demonstration project has experienced a high level of staff turnover. Several factors affected staffing:

- Division between staff over the basic tenets of the program—Management staff came to believe that the service delivery should be more therapeutic, while the line staff maintained that the military emphasis was the cornerstone of the program.
- Reduction of federal monetary support—According to staff interviews, turnover was often attributable to staff's need for more stable and better paying employment.
- Nature of the work—The stress of the jobs affected staff turnover. By far, the DIs are the most susceptible to "burnout."

Facilities

Finding facilities within which to implement the program was one of the greatest hurdles for the EYC. Legal battles over zoning changes occurred regarding the original site. Citizens protested as various alternative sites were selected because they did not want "juvenile delinquents" in their neighborhoods.

Residential Program Implementation Issues

The boot camp program evolved over time as staff grappled not only with program philosophy, but a wide range of practical implementation issues. These included:

- Individualized treatment plans—Though the individualized treatment plan was intended to engage all the key players in the youths' boot camp experience, EYC staff had varying perceptions of their own impact on the development and maintenance of the plan.
- Inclusion of the family—A major change in the residential program was introduced in October 1993, when a family program was implemented. EYC staff try to involve the parents "from day one" because all staff interviewed agreed that a supportive family was one of the strongest predictors of success in the EYC

program. Efforts to involve parents in the program appeared to be fairly successful.

- Staff Training—In-service staff training also introduced in October 1993.

Aftercare Issues

An effective aftercare program has been difficult to establish. The project experienced problems with the original aftercare model and then implemented a restructured model in late 1993.

The original aftercare design, was not accepted by the cadets. According to staff, the Boys and Girls Club was not seen as age or activity appropriate by the cadets. Providing activities at seven different locations also caused problems. The fragile esprit de corps that had been nurtured during the residential phases disintegrated as cohorts were dispersed among different locations.

The revamped aftercare program of December 1993 continued to be refined to increase contact with youth during the six months after release from the residential program. A major change was introduced in August 1994. Although it did not affect the boys in this study, it was important in the evolution of the aftercare program. In August 1994, three drill instructors became "Rotating DIs." The DI now rotates with his class, from boot camp through the first three months of aftercare. All of the staff interviewed reported that the Rotating DIs were excellent representatives of the EYC, and in their efforts to assist their cadets, were also making an extremely favorable impression on the community.

Other difficulties encountered in the aftercare program include parent involvement and finding employment for the youth. Parent involvement proved to be a particular challenge. Parents note numerous reasons for not attending the family aftercare program, such as lack of transportation, work schedules and lack of child care. The difficulties in finding work for the EYC youth have likewise been numerous. The main problem is that most of the youth are too young to hold jobs that require more than minimal skills.

The EYC staff have tried to strengthen community support in overcoming issues arising from the effort to mainstream EYC youth back into the community school system. The EYC staff have developed networks and strengthened linkages and partnerships within the school system and community. EYC staff are working toward improving the community's impression of the EYC and its cadets.

Summary of Continuing Aftercare Issues

At the time of Caliber's site visit, the revised aftercare program was still evolving. Both EYC and SYC staff indicated that they were enthusiastic and supportive of the Rotating Drill Instructor concept. Nevertheless, the Rotating DI may be a candidate for burnout as much as when he operates as a boot camp DI. The EYC staff mentioned other aftercare issues that they are contending with:

- There is a need to increase the transition phase to adequately prepare the cadets for life after boot camp.
- There is a need to facilitate a smoother transition to public schools.
- The EYC staff are planning to explore new techniques to engage more parents in aftercare activities.
- EYC needs to actively engage youth in aftercare by providing activities that are relevant, build self esteem, promote personal growth and build on the esprit de corps established during the residential phase.
- Logistical challenges must be overcome, for example, lack of staff and cadet transportation.
- Activities need to be planned and structured.
- New ways are needed to provide vocational training and employability skills.

Overall, the EYC staff indicated that they were confident, especially in the light of their successes over the past year, that the newly revamped aftercare component would be successful and more effective.

3. YOUTH CHARACTERISTICS AND PROGRAM OUTCOMES

The analyses presented in this chapter are based on data compiled from a variety of sources, including data collection forms used over the course of the project, criminal history and recidivism databases compiled and supplied by Mobile Juvenile Court staff, and program records obtained from program staff during field visits. The analyses present a description of the characteristics of the youth selected for the project and the outcomes of the various phases of the boot camp demonstration in Mobile.

3.1 Experimental and Control Group Comparability

A total of 374 youths were successfully screened and randomly assigned to the experimental (187) and control (187) groups between April 1992 and November 1993. A detailed comparison of critical youth characteristics across the two groups includes: demographic and family characteristics, education experiences, drug and alcohol involvement, criminal history and placement experiences, and committing offense and risk assessment. Comparability between the two groups, of course, is an assumption of random assignment, and constitutes a precondition for the analyses and findings presented throughout the evaluation.

The results of the comparability assessment demonstrate a remarkable resemblance between the experimental and control groups across a wide array of characteristics. Relatively modest differences were observed in the level of alcohol use by youth. The control youths were more likely to have major alcohol use than the experimental youths. These differences, however, would not be expected to have an independent effect on the key questions and analyses constituting the evaluation. The differences between experimental and control groups will be controlled for in the outcome analyses. No other differences were found to be significant.

3.2 Residential Phase Outcomes

Information describing the detention and residential experiences of experimental group youths was compiled from the information supplied by court staff and from exit forms administered only to experimental group youths at the point of their release from the boot camp. The information includes:

- Pre-transfer detention experiences—Control youth were held in detention an average of four days longer than experimental youth. The major impact of this time in detention is the cost incurred.
- Residential phase youth dispositions—162 of the 187 total experimental youths selected in cohorts 1-18 successfully graduated from boot camp (87%). Of the 176 control youths included in the experiment, all but one of 41 sentenced to DYS had completed their term of residential confinement at the established reporting cut-off point. The majority of the control youths (135) was sentenced directly to probation or to other alternatives.
- Duration of residential term of confinement—Youths successfully graduating from boot camp and transitioning to aftercare served an average term of 93 days. Among the control group who were confined, the average term of confinement was 148 days, or nearly 1.6 times the mean length of stay of graduating experimental youths.

- Behavioral infractions in boot camp—Of the 162 youths who successfully completed the residential phase through cohort 18, a total of 352 behavior infractions were recorded. The most common involved fights with other youths, followed by horseplay, physical abuse, escape, and incidents of insubordination or defiance. About 69 percent of the youths perpetrated the infractions.
- Education scores—All experimental youths participated in an education curriculum several hours each weekday during the three-month confinement at EYC. Youths were most likely to improve in reading skills, followed by language, math, then spelling skills. Approximately 80 percent of all experimental youths for whom pre- and post-test scores were available improved at least one grade level in reading skills. 79 percent improved at least one grade in language. 73 percent improved at least one grade in math while 68 percent did so in spelling.

3.3 Aftercare Phase Outcomes

Although a total of 162 youths graduated from the EYC residential phase of treatment, the evolving nature of the aftercare phase—in terms of staffing turnover, changing aftercare locations, and differing treatment approaches—created many difficulties in obtaining reliable and comprehensive data concerning the completion of many aftercare treatment objectives. The findings are based on the subset of experimental youths (n=134) for whom completed Aftercare Tracking Forms were obtained. Furthermore, the aftercare population has been divided into two subgroups: participants in the early aftercare program (n=59), which was less rigorous, and participants in the revised, more structured aftercare (n=75). Comparable data for control youth were not available for analysis. The available data have been analyzed based on the experimental subgroups singularly, as well as in an aggregate total aftercare population, concerning:

- Transitional living arrangements—More than eight of every 10 youths who went to aftercare lived with their parents at their home. However, for a sizeable proportion of youth (approximately 16%), living arrangements were either unknown, or the youth was AWOL from the aftercare program.
- Education overview—Data were available only on whether youths returned to school at all. Close to seven out of 10 youths (69%) returned to some form of schooling program, with almost three-quarters (73%) of those returning to regular mainstream schools or GED programs. Interestingly, the revised aftercare program, which started in December 1993, had less overall success in returning youths to their educational paths. However, in the overall education analysis, there are no statistically significant differences between the original and new aftercare programs.

- Employment—Overall employment is minimal (17% of all aftercare youths) and almost exclusively on a part-time basis (20 out of 23 working youths), reflecting the young age of the Mobile population. The original aftercare program again provided a higher percentage (23.7%) of employed youths than the subsequent aftercare program (12.0%). This difference is borderline statistically significant ($p=0.05021$), but may be due to differing recording procedures by the case workers rather than a programmatic difference.
- Youth and family counseling—Two factors dramatically improved after the transition from the original aftercare program to the revamped program: (1) youth participation in some combination of individual and group counseling, and (2) the inclusion of the family in the same counseling sessions. Most new aftercare youths (84%) have recorded counseling, as opposed to only about half of those youths who were active in the original aftercare program. This is overwhelmingly statistically significant ($p=0.00000$), but can be based only on a counseling recorded/not recorded basis, not any true measure of those who received counseling versus those who did not.
- Community service and restitution—About 83% of youths performed some form of community service, averaging more than 57 hours. Almost 39% have paid some amount of restitution, averaging \$159.17.

4. ANALYSIS OF RECIDIVISM FACTORS

The results of examining recidivism differences within the experimental group and between the control and experimental groups are examined here. The results of examining the relationships between prior or committing offenses and subsequent offenses, and the relationship between positive outcomes of boot camp and recidivism, are also examined.

4.1 Data for Recidivism Analyses

Data required for the recidivism analyses were extracted from a variety of cooperating sources. Information characterizing the rates of re-offending (the first adjudicated offense), as well as the severity and types of offenses for both experimental and control group youths, was extracted from the Juvenile Court Information System by a team of Juvenile Court staff. The date of censoring, or the point at which the system was searched for new adjudicated offenses, was November 30, 1994; this also represents the end date for calculating time free to recidivate following release for each youth.

Facility entrance and release information for experimental youths, by which time-at-risk in the community could be calculated, was provided to the court team by EYC. Similar

movement information for control group youths was extracted by Juvenile Court staff from monthly regional reports of the Alabama Department of Youth Services.

Recidivism was defined as a court-adjudicated new offense or an adjudicated technical violation of probation, rather than merely a re-arrest. Technical violations were included in this definition of recidivism because of the large number of youth who violated probation as their first offense after release from EYC or DYS, or while in the community on probation. Juvenile Court staff conducted a search of the system for adjudications on record, through both the juvenile and adult systems, for both experimental and control group youths following release from their respective terms of confinement. Information describing the first subsequent adjudication was considered to be most reliable; thus, data on offenses subsequent to the first adjudicated offense following release from confinement, if any, were not used in the analysis in this report.

4.2 Residual Samples

A total of 374 youths were selected and randomly assigned to both the experimental (187) and the control (187) groups, through cohort 18. However, 27 experimental youth (14.6%) and 13 control youth (7.0%) were lost to the study, resulting in final residual samples of 160 experimental youth and 174 control youth available for analysis. Reasons for these losses are documented in Chapter IV of the full report.

4.3 Methods for Recidivism Analyses

Recidivism among youth involved in the Mobile Environmental Youth Corps (EYC) program and the control group poses the following four problems for data analysis:

- The data are censored. Information collection on recidivism was terminated on a researcher-imposed date, November 30, 1994, and it cannot be assumed that youth who did not recidivate by then will not recidivate in the future. Doing so would bias conclusions about factors that influence the risk and rate of recidivism.
- These youth have been free to recidivate for varying lengths of time, and time free in the community is likely to be an important explanation of differences in rates of recidivism.
- The risk of recidivating for EYC youth compared to control youth may vary across time. It is important to know at what point the EYC youth and control group youth are the most alike in recidivism rates and at what point they are the most different.

- Differences between the two groups on important background factors, social history data, criminal history data, or demographics might either explain or mask differences in recidivism rates.

In order to meet these challenges, the data analyses consisted of two basic steps. The first step included baseline comparisons of recidivism between the experimental and control groups and a comparison between the two groups dependent on time to subsequent offense. Then, two more complex analytical techniques, logistic regression and Cox proportional hazards regression, were used to make recidivism comparisons between the experimental and control groups while removing the effects of any group differences.

The assessment of differences in recidivism between the two treatment groups was complicated by one unique characteristic of the Mobile demonstration project—the high number of youth who violated probation as their first adjudicated offense after their release from EYC, DYS, or while in the community on probation. Therefore, additional analyses were done and briefly reported in the text. Relevant statistical output is contained in the Appendix.

4.4 Results of Recidivism Analyses

In summary, the analyses indicate:

- No overall differences in any measure of recidivism between the experimental and control groups
- EYC youth recidivated more quickly than did control youth in the early days after release
- Group differences on demographic characteristics, background factors, social history, and criminal history were not suppressing or masking any recidivism differences in the two groups
- Examinations of differences in recidivism, related to the treatment or aftercare experiences for the EYC youth and the type of sentence for the control youth, revealed no association between these experiences and recidivism.

Interpretation of these analyses is limited by the absence of two kinds of information about the youth's experiences: detailed information on treatment during the residential phase and information on the context in which the recidivism occurred. It could be that differences in the type of counseling or educational support received during the residential phase might explain some of the variation in recidivism. The lack of information on the post-release environment, including level of supervision in which the youth were living at the time of the recidivism, also

limited the analysis. Current influences may have been more important to the explanation of recidivism than were background or treatment factors.

4.5 Subsequent Offenses

Ideally, the types and levels of offenses committed subsequent to treatment could be analyzed to determine if, while not preventing subsequent new offenses, treatment was related to later offenses of less severity, less frequency, or differing type. However, this form of analysis requires extensive information on recidivism including multiple subsequent offenses. Complete information of this type was not available. Therefore, the only relationships examined were between previous offenses, committing offenses, and first new offense after release from treatment.

Unfortunately, the important issue of a "monitoring" effect (i.e., whether one group of youth was at greater risk of being detected for new offenses because of more intensive scrutiny and observation during aftercare) also could not be explored because of insufficient data. Information to examine this issue, including the origin and circumstance of each new offense and technical violation (i.e., where the offense was committed or whether aftercare staff contributed to bringing charges), was never part of the routine data collection process.

In summary, the possible analyses indicate:

- Severity of new offense—Differences between the experimental and control groups on the severity of new offenses were found not to be statistically significant.
- Type of new offense—Examining new adjudicated offenses by offense type also showed strong similarities between the two groups.
- Type of offense over time—Youth whose prior offense was a property offense were more likely to commit a violent offense for their recidivating offense than all other kinds of offenses. When the treatment groups were examined separately, there were no significant associations for the control group. For the experimentals, however, a significant link persisted between prior property offenses and new violent offenses.
- Level of offense over time—Examination of the levels of offenses over time indicated no systematic association, either positive or negative, between level of prior/committing offense and level of subsequent offense.
- Indices of severity of offense—In looking at correlations between an indicator that combined degree and level of indices for prior offense, committing offense, and

recidivating offense for the group as a whole and for the experimentals alone, moderate positive significant associations between the severity of the committing offense and the severity of the new offense were found. No significant associations between previous offense severity and recidivating new offense severity were found in the separate analyses of the control group.

In other words, there was no support for offense suppression occurring as a result of the EYC program or the treatment received by the control group. These conclusions, however, were based on very small sample sizes and only on the first offense after release. Further analyses of later offenses may indicate a long-term suppression effect.

4.6 Positive Outcomes of EYC and Recidivism

The relationship between one indicator of program success, educational improvement, and recidivism was examined. Youth were considered to have improved educationally if there was one grade or more improvement in overall averages for reading, math, language, or spelling. Youth who did not improve or showed a negative change were grouped together for the analysis. The cross tabulations between educational improvement and recidivism indicated no significant association. This suggests that youth who showed educational improvement during EYC were no more or less likely to recidivate than youth who did not show educational improvement during EYC.

4.7 Conclusions

These analyses demonstrated that there was no overall recidivism difference in EYC and control youth. The only difference noted was that EYC youth tended to recidivate slightly faster than did the controls beginning approximately three months after release. It is possible that special attention paid to EYC youth in the period three to six months after release from the boot camp phase might be helpful. This appears to be a particularly vulnerable period for them.

These analyses also provide no indications of a suppression effect of treatment on level or type of subsequent offense. Information concerning the timing and type of offenses following the first recidivating offense would allow further testing for the presence of a suppression effect of treatment on number or type of recidivating offenses.

Further research should incorporate a detailed post-release contextual analysis. Given that the significant background factors explained so little of the variation in recidivism for either the EYC youth or the control group, it is possible that a larger part of the variation in recidivism might be explained by the context of the youth at the time of the recidivism. There is very little

information currently about the post-release activities of either group. Further research should also continue to follow youth to determine if suppression of number or type of subsequent offenses occurs following EYC participation. Increased information concerning the post-release context of the youth and their activities subsequent to their first post-release incident may reveal patterns of recidivism that would yield more substantive policy recommendations.

5. DEMONSTRATION COST ANALYSIS

A documentation and analysis of costs associated with the Mobile boot camp initiative was conducted as a preliminary step to presenting cost-effectiveness measures of the boot camp intervention, compared with alternative sentencing options and settings in Mobile. The objective is to document demonstration costs on the basis of available cost and resource data over the course of the project to date, from October 1991 through September 1994. The analysis includes unit cost calculations and a comparative cost analysis. These are based on data compiled and supplied by the Boys and Girls Clubs of Greater Mobile, Alabama.

5.1 Unit Cost Calculations

Using costs available to this point, two critical unit cost measures can be calculated: cost per youth per day and cost per offender. The **cost per day** can be defined as the total cost of providing services to an individual youth on a daily basis, and can be calculated to reflect residential and aftercare services separately. The cost per day is a function of the average total number of youths being served over the measured period. The **cost per offender** can be defined as the total cost of providing services to an individual youth over the full program duration, or his entire length of stay. Together, the two measures provide a useful basis for comparing the relative costs of providing services in boot camp as opposed to alternative placements.

5.2 Comparative Cost Analysis

The **cost per day** of providing residential services per youth was lower for boot camp youth (\$61.68) than for the subset of control group youth who were confined (\$75.00). However, the cost of providing aftercare services per youth per day was higher for boot camp youth (\$2.80) than for control group youth (\$1.91), whose aftercare consisted of probationary monitoring. For control group youth sentenced to probation (75.9%), however, the total average per day cost of \$1.91 was considerably lower than the weighted average daily cost of boot camp plus aftercare (\$22.86). The combined weighted average daily cost of providing treatment services to control youth was \$8.15, or significantly less than half the weighted average daily cost of providing treatment services to experimental youth (\$22.86).

Using length of stay, or duration of services, **cost per offender** measures can be calculated and compared. The cumulative total treatment cost for experimental youth was approximately \$6,241 per youth. Among control group youth who were confined, the cumulative total treatment cost was approximately \$11,616. Among control group youth who were released immediately to probation, the total treatment cost was approximately \$516. The weighted average total treatment cost among control group youth as a whole was \$3,193, or approximately half the total treatment cost for experimental youth (\$6,241).

Thus, the total cost of treating experimental youth is considerably higher than the total cost of treating control youth, which is primarily a function of the fact that the overwhelming majority of control youth never experienced a term of residential confinement, but were released directly to probation.

6. SUMMARY OF KEY FINDINGS

6.1 Key Findings Related to EYC Project Design and Operations

Key findings related to EYC project design and operations include:

- *Selection.* Platoon and group cohesion suffered from the inability of the cadets at each end of the initial age spectrum (13-17) to work and live together. Therefore, the EYC targeted youth 13-15 years old for selection.
- *Aftercare Activities.* The original aftercare program, which was dispersed among seven Boys and Girls Clubs throughout Mobile, proved not to be workable. A revised, centralized program was implemented in December 1993.
- *Project Funding and Resources.* The reduction of federal funds had a negative impact on project implementation and operations. The reduction caused staff layoffs and created anxiety among staff, who feared being laid off. In response to the reduction in federal funding, EYC began to successfully solicit funds from state, county, and city sources.
- *Staff Turnover.* There has been high turnover among EYC staff. Drill Instructors often leave for higher pay and use the boot camp to gain work experience. The Aftercare Coordinator and Life Skills Coordinator positions have lacked clear-cut requirements. As a result, the positions have been held by individuals with a wide range of skills and educational backgrounds.
- *Community and Family Support.* EYC staff recognize that the community needs to "buy into" the concept of aftercare. Staff believe that a community-supported

program will ultimately lead to cadet success. Family support is also important. Aftercare lacks a much needed family component.

- *Facilities.* Locating permanent facilities for residential and aftercare programs has proved to be a major challenge. The aftercare facility, which is operated by the Boys and Girls Clubs, has become a point of contention.

6.2 Key Findings Related to Program Outcomes

All of the study's significant findings must be considered in the overarching context that the conceptual boot camp model was only *partially* implemented in Mobile, particularly with respect to the critical support services intended for youth during aftercare. Key findings related to program outcomes include:

- During the residential phase, experimental youth made noteworthy progress, improving skills in reading, language, math, and spelling. During aftercare, nearly 70 percent of experimental youth returned to some form of schooling.
- The comparative rates of recidivism are favorable, with 28.1 percent of experimental youth adjudicated for new offenses compared to 31 percent of control youth. An additional 28.1 percent of experimental and 29.3 percent of control youth were adjudicated for technical violations, for an overall recidivism rate of 56.2 percent for experimentals and 60.3 percent for controls.
- The comparability of the recidivism rates, however, carries a negative dimension. Although data are not available to indicate whether experimental youth would otherwise have been committed to DYS or placed on probation, the large proportion of control youth put on probation (73%) suggests that a significant proportion of experimental youth were confined for three months when they otherwise would have been placed on probation. To counterbalance that level of intrusion in a child's life, one would hope the boot camp experience would result in a much lower recidivism rate for experimental youth.
- There were no overall differences in EYC and control youth with regard to any form of recidivism. The only difference noted was that EYC youth tended to recidivate slightly faster than did the controls between three and six months after release. This suggests that special attention be paid to EYC youth during that particularly vulnerable period.
- Demographic, background, criminal history, and social history factors explained some difference in recidivism rates for EYC youth and control youth in separate analyses of the groups. As might be expected, discipline problems at home, drug problems, young age at involvement, and gang involvement contributed to the increased probability of some form of recidivism for some of the subgroups.

These differences, however, explained only a small amount of the variation in recidivism.

- Further research will be required to determine if the boot camp treatment has a suppression effect, i.e., if the number and type of subsequent offenses are reduced.
- Given the composition of the control group, in which the majority of youth was released on probation, cost outcomes indicate that boot camp is not cost effective. The cost per experimental youth (\$6,241) is considerably higher than the *weighted* cost per control youth (\$3,193), which represents the combined cost for both confined and probation youth. The analysis of cost outcomes in Mobile very clearly demonstrates that the cost effectiveness of boot camp depends on the program's diversionary effect on alternative placements, with the critical factor being the relative diversion from more costly confinement.

I. INTRODUCTION

I. INTRODUCTION

This Interim Report presents the preliminary findings of the Evaluation of the Impact of Boot Camps for Juvenile Offenders Demonstration project operating in Mobile, Alabama since April 1992. This introductory chapter is organized in the following sections:

- Demonstration project in three sites
- Overview of the three site projects
- History of the evaluation
- Summary of the evaluation objectives and methodology
- Data collection roles and responsibilities
- The Interim Report sample.

The chapter concludes by outlining the organization and objectives of the chapters that follow.

1. DEMONSTRATION PROJECT IN THREE SITES

In July 1990, the Office of Juvenile Justice and Delinquency Prevention (OJJDP), in cooperation with the Bureau of Justice Assistance, announced and invited applications for an initiative to develop and test a juvenile boot camp program intended to emphasize discipline, treatment and work (DTW) and to focus on a target population of adjudicated, non-violent, juvenile offenders under age 18¹. The strategy for development of the prototype consisted of three stages, during which successful applicants were to conceptualize the program model based on the announcement design, to develop training and technical assistance materials to operationalize the model, and to test the experimental prototype. Performance during these three pilot stages was to be monitored by OJJDP and used to affirm each partnership's status as a demonstration site through continued funding.

In September 1991, cooperative agreements were competitively awarded to three public-private partnerships representing Cleveland, Ohio, Denver, Colorado, and Mobile, Alabama. Completion of pilot activities was funded by an 18-month initial award to each, followed by a second non-competitive continuation award. Each of the three experimental boot camps became operational in April 1992.

¹ Office of Juvenile Justice and Delinquency Prevention (OJJDP), U.S. Department of Justice. *Federal Register* program announcement, Vol. 55, No. 134, July 1990.

2. OVERVIEW OF THE THREE SITE PROJECTS

In its program announcement, OJJDP established several criteria for the demonstration. The juvenile boot camps were intended to provide "constructive intervention and early support," and to be an intermediate sanction program that would serve as a criminal sanction, promote basic, traditional, and moral values inherent in our national heritage, increase academic achievement, provide discipline through physical conditioning and teamwork, include activities and resources to reduce drug and alcohol abuse among juvenile offenders, encourage participants to become productive, law-abiding citizens, promote literacy by using intensive, systematic phonics, and instill a work ethic among juvenile offenders.

The target population was to be non-violent juvenile offenders who were at high risk of continuing involvement in delinquency and/or drug and alcohol abuse, adjudicated delinquent and awaiting implementation of court disposition, under 18 years of age, with no history of mental illness, not considered violent or have a history of involvement in violent crimes, not considered an escape risk, able to demonstrate motivation to participate in the program, and who were not include serious habitual offenders who ordinarily would be assigned to a correctional institution.

OJJDP also specified that the intervention was to consist of four phases over twelve months:

1. **Selection**, in accordance with the established criteria
2. **Intensive Training** in a highly structured residential program of no less than 90 days
3. **Preparedness**, consisting of intensive supervision while pursuing academic and vocational training or employment, and lasting six months
4. **Accountability**, during which program staff were to guide services provided by community public agencies and private organizations; this phase was also to include payment of restitution, and was to last three months.

The preparedness and accountability phases constitute the aftercare portion of the intervention, the nine months of which, in comparison to the three-month residential phase, belie the popular notion of a "boot camp" as a period of confinement under intense military discipline. The cornerstone of the OJJDP program design rests in the selection phase, when eligible participants were to be randomly assigned to experimental and control groups.

Within the parameters established by OJJDP, the three participating sites were guided by distinct philosophies, approaches, and specific objectives in developing and operationalizing their respective experimental boot camps. The three experimental projects were initiated within unique judicial and institutional settings and under organizational and operational conditions peculiar to each. In addition, there are critical cross-site differences in the type of youth targeted and served by each program, particularly with respect to the extent and severity of prior criminal history.

In Cleveland, program development and design followed a treatment approach in accordance with the theoretical underpinnings of the normative model. Rather than emphasizing the punitive aspects of incarceration, the conceptual core of the initiative was centered on learning and skill building within a positive culture. Blending military features and characteristics (e.g., techniques for indoctrination, training and regimentation) into the program concept only insofar as to complement and buttress the normative treatment model represented a considerable developmental challenge. Youths selected for the experimental and control groups in Cleveland were drawn from a pool of youths destined, at adjudication, for confinement in state or county institutional facilities; they constituted the most serious group of offenders of any of the three project sites. In addition, youths in Cleveland were given an opportunity to "select" boot camp by signing a voluntary statement, whereas youths in Denver and Mobile were required to participate.

In Denver, the program was conceived as a military-style boot camp from the beginning, with traditional treatment components de-emphasized and relegated to a secondary position. The boot camp was envisioned as a considerable mental as well as physical challenge for participating youths, and to "remain standing" or complete the boot camp was to be regarded as a significant personal victory. Thus, the objective was to first instill ethics, values and discipline and to promote self-esteem in preparation for approaching other life challenges, such as the commitments of school and work following the boot camp experience. Denver differs from the other two sites in that its aftercare program did not remain operational for the entire project duration. Representing another important departure, Denver drew its sample of participating youths in part from committed youths, but also from youths who otherwise would have been placed on probation.

In Mobile, the program concept philosophically resembled its Denver counterpart in emphasizing traditional military skill building, but also devoted more than 50 percent of each day to life skills and educational development. An emphasis on environmental awareness and outdoor activities—the program is called the "Environmental Youth Corps"—distinguishes the Mobile program from the operations in Cleveland and Denver. Youths participating in the

Mobile initiative were, as a whole, the least serious offenders of any of the three project sites; while some would have been confined, the majority would have been released on probation.

These major differences in treatment modalities and operational experiences, as well as differences in the criminal backgrounds of selected youths across the three sites, dictate separate analyses for Cleveland, Denver, and Mobile and, thus, preclude data aggregation across sites.

3. HISTORY OF THE EVALUATION

Under contract to provide evaluation services to the Office of Juvenile Justice and Delinquency Prevention (OJJDP), Caliber Associates was tasked in the summer of 1993 to conduct an evaluation of the impact of the three boot camps for juvenile offenders. Research to evaluate the impact of the three experimental boot camps had been initiated by a team from the American Institutes for Research (AIR) and the Institute for Criminological Research (ICR) at Rutgers University. Data from the first 17 months of boot camp operations had been collected under the AIR/ICR research design. In order not to lose that data, Caliber's research design incorporates key features of the earlier design, but also builds upon it to accommodate changes that had occurred in the three programs.

The research design for the impact evaluation as conceived by the AIR/ICR team went through several iterations in response to changes in scope made by agencies in the Office of Justice Programs and simultaneous budget constraints. The initial design, submitted in June 1992, called for a 24-month impact evaluation to begin in October 1992 and culminate in a final report to be submitted in September 1994. Data analysis was to be done on a sample of as many as 260 but at least 160 youths in both the experimental and control groups in each site, and include recidivism data for a period of 6-21 months. The sample was intended to include youths from the April-September 1992 cohorts, but with the flexibility to drop some cohorts to allow for "shakedown" of boot camp operations and finalization of data collection instruments.

A revised design submitted in September 1992 called for case studies of the three boot camps to be conducted from October 1992 through September 1993. The reduction of the study from two years to one meant cutting a year off data collection, thereby restricting data to be analyzed to the projected 120 experimental and control youths who were to be selected in the first 12 months of operations in each site, i.e., April 1992 through March 1993. The restricted time frame would also necessarily severely restrict the analysis of any recidivism data.

Another revised design was submitted in December 1992, and additional revisions were proposed in March 1993, but the one-year time frame and the sample size of the September 1992

design remained in effect, as did the data collection instruments that had been proposed in September. A final research design for an impact evaluation, including analysis of recidivism data, was never formally implemented, but for all practical purposes the evaluation went forward using procedures and instruments that were developed between April and September 1992.

The cornerstone of the design, in accordance with OJJDP's original announcement of the juvenile boot camp demonstration project, is random assignment of eligible youths at each site to experimental and control groups. Each site has its own set of eligibility criteria. As pairs of youths are determined to be eligible for the experiment, they are identified to the research team, which randomly assigns one to the experimental group and the other to the control group. ICR performed this function from April 1992 through August 1993; Caliber Associates officially took over the assignment process on September 1, 1993.

At that time, Caliber requested that the juvenile boot camp sites continue using the AIR/ICR data collection instruments for purposes of the impact evaluation. The evaluation research design promulgated by Caliber in draft form in May 1994 and in final form in September 1994 incorporated key features of the earlier design, but also supplemented data collected via the original data collection instruments with additional data that were determined to be available from other sources.

4. SUMMARY OF THE EVALUATION OBJECTIVES AND METHODOLOGY

OJJDP's program announcement of boot camps for juvenile offenders states that the evaluation "will be designed to determine the extent to which adjudicated juvenile offenders as program participants:

- Receive punishment and are held accountable for their adjudicated criminal behaviors
- Continue their education and improve their academic performance
- Acquire work skills and experience, as well as a work ethic
- Are motivated to become productive law-abiding citizens
- Receive treatment that serves to reduce their involvement in drug and alcohol abuse."

In addition, program costs are to be documented; one of the basic premises of using boot camps as an intermediate sanction is that they will be cost effective. All of these evaluation objectives

are to be determined within the framework of random assignment to experimental and control groups.

In consideration of OJJDP's evaluation objectives, the following key questions were established to guide Caliber's evaluation of the impact of boot camps for juvenile offenders:

1. To what extent are the experimental and control groups similar?
2. What is the rate of successful completion of the boot camp intervention?
3. To what extent do experimental youth receive the services prescribed for them?
4. To what extent does each group (experimental and control) demonstrate positive signs of program impact?
 - Payment of restitution
 - Completion of community service
 - Return to school/completion of GED/vocational training
 - Employment.
5. What is the recidivism rate of the experimental group compared to that of the control group?
6. Is the boot camp intervention cost effective?

That the experimental and control groups are similar is a fundamental hypothesis of the study.

5. DATA COLLECTION ROLES AND RESPONSIBILITIES

Information on experimental and control group youths has been collected over the course of the demonstration using procedures and instruments that were originally developed by the AIR/ICR team between April and September 1992. In Mobile, four data collection instruments were used to capture data for the evaluation, including:

- **Intake Form**, completed at intake for both experimental and control group youths, based on criminal and social histories in court records.
- **Staff Rating Form**, completed by Drill Instructors at the beginning and in the final week of the boot camp residential phase, used to rate boot camp youth's behavior in terms of respect for authority, self discipline/control, responsibility, integrity, teamwork, personal appearance/bearing, social behavior, and work ethic.

- **Boot Camp Exit Form**, completed upon graduation from the three-month residential phase, or expulsion, or dropout; indicates distinctions and discipline problems and, if exit was premature, the reason why and the new sentence imposed.
- **Aftercare Tracking Form**, completed at the end of the fifth month of aftercare or upon premature exit; includes information on program participation and services received during aftercare, or reason for premature exit and subsequent disposition.

In Mobile, these instruments were revised at least once over the course of the evaluation, with some instruments undergoing at least several revisions.

The Intake Form, which was completed on both experimental and control group youths while in detention awaiting transport to their respective placement assignment, was the responsibility of Mobile Juvenile Court personnel at Strickland Youth Center. In order to compensate for identified gaps in historical information on each youth, the Juvenile Court was also asked to supply court records, consisting of pre-dispositional reports, from which supplemental data elements were extracted by Caliber.

The critical pre-demonstration criminal history and post-placement offense and court involvement data required for this Interim Report were compiled by a team of Juvenile Court staff. Data management screens on each youth involved in the study were printed from the Juvenile Court management information system. Key data elements were extracted from the screen print-outs, coded onto an intermediate paper collection instrument, and entered into a database file in preparation for its transfer to Caliber for analysis. Several levels of random quality checks were conducted by Caliber Associates to insure the accuracy and reliability of the extracted data.

In addition, the Juvenile Court and the Division of Youth Services supplied critical movement data, consisting of a log of original facility entry and release dates and any subsequent facility entry and release dates for both experimental and control group youths, which could be used to calculate the length of time each youth was not in a secure facility and, therefore, free in the community to recidivate. Project cost data required of the evaluation, including total two-year demonstration costs-to-date were supplied by the Project Director of the Environmental Youth Corps.

6. THE INTERIM REPORT SAMPLE

Since the inception of the demonstration project in 1991, boot camps have proliferated across the country and have acquired high visibility in the national media, Congress, and the

Executive Branch of the Federal government. As a consequence, OJJDP is under pressure to report results before the demonstration can run its full course. In response to that pressure, the technical conditions required to conduct preliminary analyses were assessed, including sufficient sample size and time free to recidivate, in order to establish a schedule for issuing an Interim Report of the evaluation results.

The sample size desirable for the experiment was determined by power analysis to be 155 for both the experimental and control groups in each site.² However, all three sites went through a "shakedown" period in the first months of operation, making it desirable to oversample in order to be able to drop the first two cohorts from the analysis if they should prove to be outliers. Oversampling in Mobile created an initial sample size of 187, with the last of that number entering the residential phase of boot camp in December 1993 (cohort 18). Youths in cohort 18 graduated from boot camp and transitioned to aftercare in March 1994. September 1994 was determined to be the end of the tracking period in order to meet the Interim Report objective of monitoring each youth over a minimum six months following release. Thus, analyses contained in this Interim Report are based on the experiences of experimental and control group youths in cohorts 1 through 18.

7. ORGANIZATION OF THE REPORT

The purpose of this report is to summarize the key interim findings from the operation of the boot camp for juvenile offenders demonstration project in Mobile, Alabama based on the experiences of experimental and control group youths in cohorts 1-18. These findings have been developed on the basis of the evaluation methods and analyses promulgated in the Evaluation Research Design, issued in draft form in May 1994, and finalized and approved by OJJDP in September 1994.

Following this introductory chapter, Chapter II presents a detailed account of the boot camp project design, implementation and operational issues in Mobile, including discussions of project objectives and philosophy and the mechanics of the evaluation, as well as descriptions of the operational environment, funding sources, organization and staffing, and facilities and services. The description of the project design and implementation is based on the process data collection site visits, conducted in January and October 1994, as well as on a comprehensive

² Sample size was determined using Cohen's d. Cohen's d is a measure of the difference between population means in standard deviation units. Cohen defines small, medium, and large effect sizes as .2, .5, and .8, respectively. A small effect of a treatment can be detected with power of .80 and alpha (Type I error rate) of .05 using a sample size of 155 ($n = (Z_{\alpha} - Z_{\beta})^2 / d^2 = 155$). In other words, this study is a standard design in which there is a 5 percent chance of rejecting the null hypothesis when it is true (Type I error) and a 20 percent change of accepting it when it is false (Type II error) if the sample size is at least 155.

review of project documents and materials supplied to the project team by staff in Mobile.

Chapter III presents a documentation and description of key project interim outcomes, including critical design, service delivery, and youth outcomes. In addition to assessing experimental and control group comparability, the chapter examines client flow and service delivery outcomes as well as youth performance and accountability outcomes.

Based on outcome data presented in descriptive and statistical format in Chapter III, Chapter IV presents an analysis of recidivism data and testing of key success and recidivism hypotheses which can be supported on the basis of data available to date. The focus of the chapter is on the comparative rates of re-offending among experimental and control youth following release as well as the factors affecting the comparative rates.

Findings on demonstration project costs are presented in Chapter V. These findings are based on cost and youth case data provided by the EYC Executive Director supplemented by information obtained during process interviews.

Conclusions that can be drawn and recommendations that can be made based on the interim findings of the boot camp demonstration project in Mobile are presented in Chapter VI.

II. PROJECT DESIGN, IMPLEMENTATION, AND OPERATIONAL HISTORY

II. PROJECT DESIGN, IMPLEMENTATION AND OPERATIONAL HISTORY

This chapter describes the design, implementation and operational history of the boot camp for juvenile offenders demonstration in Mobile, Alabama. The information presented in this chapter is derived from site visits conducted in January and October 1994 to the Environmental Youth Corps (EYC) residential and aftercare facilities. To provide context for the interpretation of the qualitative data collected during the October 1994 site visit, background information was extracted from the original and supplemental grant applications submitted to OJJDP.

1. BOOT CAMP PROJECT DESIGN

This section describes the original design for the boot camp project in Mobile. The EYC was created to provide an effective intermediate sanction and rehabilitation treatment program for non-violent, youthful male offenders. The philosophy underlying the EYC is that factors contributing to a delinquent lifestyle can be overcome through military-style discipline and structure, life skills training, educational remediation and community service. The objectives of the EYC are to: hold youth accountable for their actions; improve their educational skills, understanding of family dynamics, and their peer relationships; and bring about positive changes in attitudes and behavior of youth. The youth are held accountable through restitution requirements, residential treatment (incarceration) and supervised aftercare (probation) activities.

The following sections describe the EYC screening process and the program intervention, including the residential and aftercare activities. The section concludes with a description of the intervention provided to the control group. The implementation of the project design is described in Section 2.

1.1 Screening

EYC targets youth who have failed on probation. The screening or selection process employed by the Mobile demonstration was designed to adhere to the criteria set forth by OJJDP. Youth are eligible for inclusion in the selection pool if they meet the following criteria:

- Adjudicated by the juvenile court and awaiting court disposition
- Categorized as "high risk" of continuing delinquency
- Between the ages of 13-17

- No history of mental illness
- Considered to be non-violent and/or have no history of involvement in violent crimes
- Not an escape risk
- Demonstrated motivation to participate in the program.

Exhibit II-1 graphically depicts the screening process employed by Mobile. Because the process was not systematically documented by demonstration staff, the number of youth involved in each stage of the screening is not available for inclusion in this report.

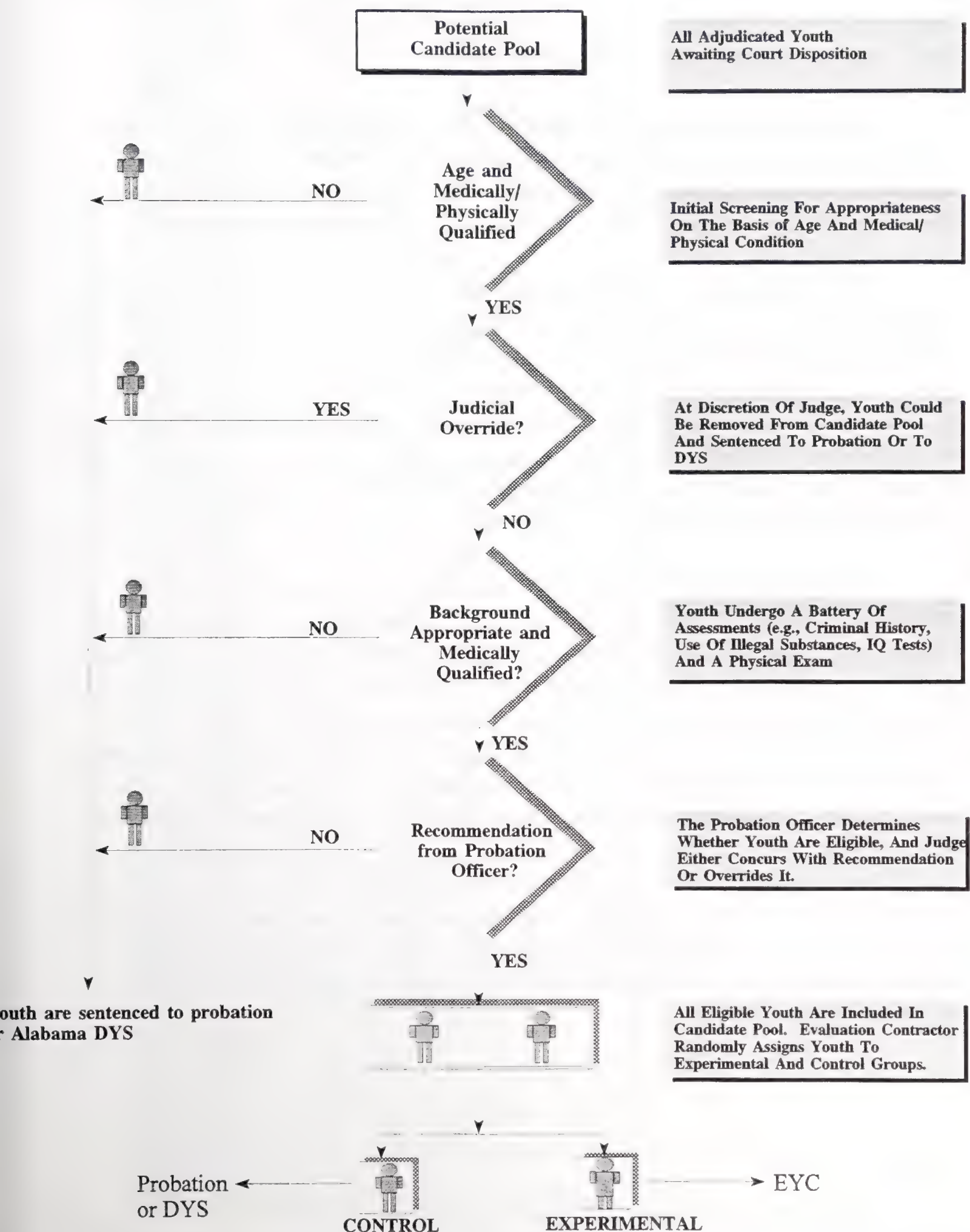
After adjudication, the probation officers at the Strickland Youth Center (SYC) are responsible for screening youth. Each youth is first screened to establish age and medical/physical suitability for project participation. After this initial screening, the judge orders the youth into the candidate pool or makes an alternative disposition. At any point in the selection process, however, a youth could be subjected to a judicial override, which, in effect, would eliminate him from consideration for the pool of potential project participants.

The EYC director reviews the candidates and can appeal the judge's decision to place or not to place a youth in the pool. The probation officer then works with the EYC committee, consisting of the EYC director, EYC probation officers and other staff, to resolve the issue.

After a youth is included in the candidate pool, he is subjected to a battery of assessments focusing on criminal history, social history, use of illegal substances, home life and school performance. A risk assessment scale developed by the Alabama Department of Youth Services is used to determine whether the youth should be committed to a residential program. Youth who are determined to be in need of residential or outpatient treatment for substance use are referred back to court with recommendations for appropriate treatment. If they overcome their problems, they are eligible to be reassessed for inclusion in the pool. In addition, a nurse, who is contracted by EYC, conducts a physical. If the youth meets all of the eligibility criteria, the probation officer recommends that the youth is eligible to attend the EYC. If the judge concurs, the youth is then included in the selection pool for random assignment to the EYC or the control group.

After the pool of candidates is established, pairs of candidates are submitted to the evaluation contractor for random assignment to either the experimental or control group. Youth assigned to control group status are then sentenced by the judge to either probation or the State

EXHIBIT II-1 PROJECT SCREENING PROCESS



Division of Youth Services. Youth assigned to the experimental group await formation of the next EYC cohort.

1.2 Boot Camp Residential Treatment Activities

The Mobile boot camp initiative is envisioned as an alternative form of intervention providing a highly structured and regimented routine of discipline, physical exercise and rehabilitation therapy. The overall objective of the EYC is to provide an atmosphere for juvenile offenders to develop discipline, confidence, responsibility, self-respect and basic values.

The ultimate goal of the treatment activities is to create law-abiding citizens, and to that end the program teaches life skills that will aid the youth in their everyday lives. It is based upon the expectation that the development of these skills and personal abilities will significantly increase the offenders' ability to lead law-abiding, creative and fulfilling lives as contributing members of a free society¹. The EYC acting director summed up the philosophy: "to provide a comprehensive, individualized program to create life change." This goal is to be achieved over the course of the program. The youth experience an intense military environment during their 90-day residential stay, followed by a six-month aftercare program.

Exhibit II-2 presents an overview of the residential program components and their objectives. The residential phase involves rigorous physical conditioning, discipline, and activities to instill confidence, self esteem, teamwork and leadership. During the residential phase, the youth adapt the military system of dress, drills, courtesy, discipline and psychological training. The program also includes: diagnostic assessment of academic skills; academic training; and life skills training focusing on substance abuse prevention, counseling, prevention of gang involvement, and employment skills. The thrust of the residential phase is to provide youth with the skills they need to function once they leave the boot camp and go back home.

The cornerstone of the EYC residential phase is the highly structured environment. The average day begins at 5:00 AM with physical training and chores. Breakfast is at 6:30 AM. Classes start at 8:30. The remainder of the day includes lunch, drilling, exercise, dinner, showers, homework, and lights out at 9:00 PM. The purpose of the structure is to instill discipline and teamwork

¹ Environmental Youth Corps Procedures Manual. Mobile, AL: 1 April 1992. p. 1.

EXHIBIT II-2
EYC RESIDENTIAL PROGRAM COMPONENTS AND OBJECTIVES

DEMONSTRATION OBJECTIVES	PROGRAM COMPONENT				
	Physical Fitness	Military Drill	Education	Life Skills	Counseling (EYC PO)
• Serve as criminal sanction	✓	✓			✓
• Promote basic, traditional moral values and instill work ethic				✓	✓
• Provide discipline through physical conditioning and teamwork	✓	✓		✓	
• Promote literacy and increase academic achievement			✓		
• Promote reducing substance abuse and gang-related activities	✓			✓	✓
• Teach employment skills			✓	✓	
• Instill confidence, self-esteem and leadership	✓	✓	✓	✓	✓

Military Drill

The cadets, as the youth are called, follow the strict disciplinary customs of the military, wearing uniforms and addressing each other, their Drill Instructors (DIs) and their instructors with military-style politeness. During this phase, the DIs use confrontational techniques to wear down the tough facade of the youth and to strip away their defenses. The cadets learn to drill and perform at community ceremonies and for their parents. The military milieu is designed to instill in the cadets the values of discipline and teamwork. For example, if one cadet does not fulfill his responsibilities, the whole cohort is punished; thus the group will collectively enforce good behavior. The intended end result of a youth's engagement in these activities is confidence and openness to personal development and behavior modification.

Physical Training

The DIs are responsible for this part of the program. They function as role models as well as motivators. Cadets are assessed during their first week on their physical capabilities. They run, climb and do push ups. Cadets then must work to function physically at a higher level. Cadets are engaged in the ROPES course their seventh week. The training is designed to lead not only to excellent physical conditioning, but also to pride in one's accomplishments.

Education

The education component is based on working with the individual to assess his strengths and weaknesses. The initial educational activities include orientation and a full battery of tests, including use of the Test of Adult Basic Education (TABE) to measure pre and post academic levels. The EYC Education Coordinator reviews the cadets' records from their school and interviews each cadet. Once the cadet's skills are assessed, an individual treatment plan is developed. The individual is involved in his own goal setting. The self-paced lessons include writing essays, geography, spelling, book reports, art projects and class presentations. Additionally, the class hears a quote for the day and participates in greetings and motivation activities. Education staff work one-on-one with the cadets at first, to help them become successful and teach them to take the initiative in their education activities. Towards the end of the residential phase, the ratio shifts so that the teacher works with five cadets, as they learn how to work independently.

The military structure is viewed by the EYC education staff as beneficial to the academic achievement of the cadets. "The discipline gives us the freedom to teach," reported the Education Coordinator. The DIs can be called in at any minute if the cadets become unruly.

Life Skills

The life skills component of the EYC residential phase is designed to prepare the cadet for life after the boot camp. The daily classes include a 30-minute to an hour lecture supplemented with a practical application of the lessons learned with worksheets or audiotapes. The content of life skills include substance abuse prevention, the impact of gang membership, anger management, hygiene, sexually transmitted diseases, and other relevant issues facing youth.

Counseling

To support the goal of providing youth with the skills to function in the "real world" and to promote continuity from the EYC residential phase to the aftercare phase, the cadets meet once a week with their Aftercare Probation officer. The two Aftercare Probation officers are co-located in the barracks with the DIS. The probation officer uses this time to build a rapport with the cadet which will be maintained throughout the aftercare phase, as well as to determine any issues that are troubling the youth and may hinder his rehabilitation.

Individualized Treatment Plan

One feature of the Mobile demonstration is the individualized treatment plan, which is developed during the residential phase of the program and maintained throughout the aftercare phase. The individualized treatment plan is developed for each youth, with input from a representative of every department (DIs, Education, Life Skills). The youth treatment plan is supposed to be reviewed every three months.

The EYC Program Coordinator has overall responsibility for maintaining the youth treatment plans. She compiles the information from the various sources, and uses the Mooney Problem Checklist to determine the cadets' treatment mix. In addition, any information provided during weekly "staffings" or case management meetings is recorded appropriately. Each cadet is discussed 2-3 times during the residential period. "Staffing" participants include the DIs, Program Coordinator, Education Coordinator and Life Skills Coordinator. To involve the cadet in his own treatment, and to include him in goal setting, the cadet must sign off on the treatment plan once it is developed and reviewed.

Infractions

Youth sometimes are involved in disciplinary incidents. The sanctions for these infractions vary according to the type of incident. DIs are in charge of minor incidents, such as name calling or fighting, and often use exercise as a punishment. Warnings, withdrawals of privileges, and work details are also used as sanctions. A more serious infraction, such as assault or theft, is dealt with by the discipline board (EYC Director, Program Coordinator, Aftercare Probation officer, Education Coordinator, Aftercare Coordinator, Life Skills Coordinator and the Senior Drill Instructor). The sanction may include a "set back," which means the cadet may stay in the residential phase for 30 additional days; if the infraction is very severe (for example, escape or assaulting a staff member), the cadet may be put in isolation for up to 72 hours. The DIs adhere to the Prevention, Intervention Training (PIT), which includes talking with cadets and trying to prevent an infraction from occurring.

1.3 Aftercare Activities

In the original aftercare design, each youth was assigned to one of seven Boys and Girls Clubs closest to his residence. The clubs were to provide weekly educational and recreational services, tutoring, life skills, and community service opportunities. The program was supervised by an Aftercare Coordinator. Youth also had to report to the probation office twice a month. Additionally, they were required to pay restitution and were supervised by a restitution coordinator from SYC. A key feature of the original aftercare design was community service projects, which were conducted every Saturday and which, in keeping with the program concept, had an environmental orientation. Included were community clean-up projects and the clearing of trails at a wooded recreational facility owned by the Boys and Girls Club.

In August of 1993, the Mobile project staff formally acknowledged that the aftercare program was not working as envisioned. With the advent of the third director's arrival in September 1993, and the addition of a Program Coordinator in October of that year, the program was revamped. The revised program was implemented in December 1993. All cohorts entering aftercare after December 1993 obviously received the revamped services. Importantly for this study, a large number of boys from earlier cohorts, extending as far back as Cohort 2, were "re-engaged" in the aftercare program starting in December 1993. The revised program is therefore described here in some detail.

The Boys and Girls Club has primary responsibility for aftercare programming for the EYC cadets. The Boys and Girls Club has adopted four factors as the basis of their youth development strategy, including interventions to promote a sense of competence, usefulness,

belonging and empowerment. The program contains six core areas, including cultural enrichment, health, physical fitness, citizenship, education development and outdoor recreation. Exhibit II-3 describes the flow of aftercare services provided to the youth under the new design.

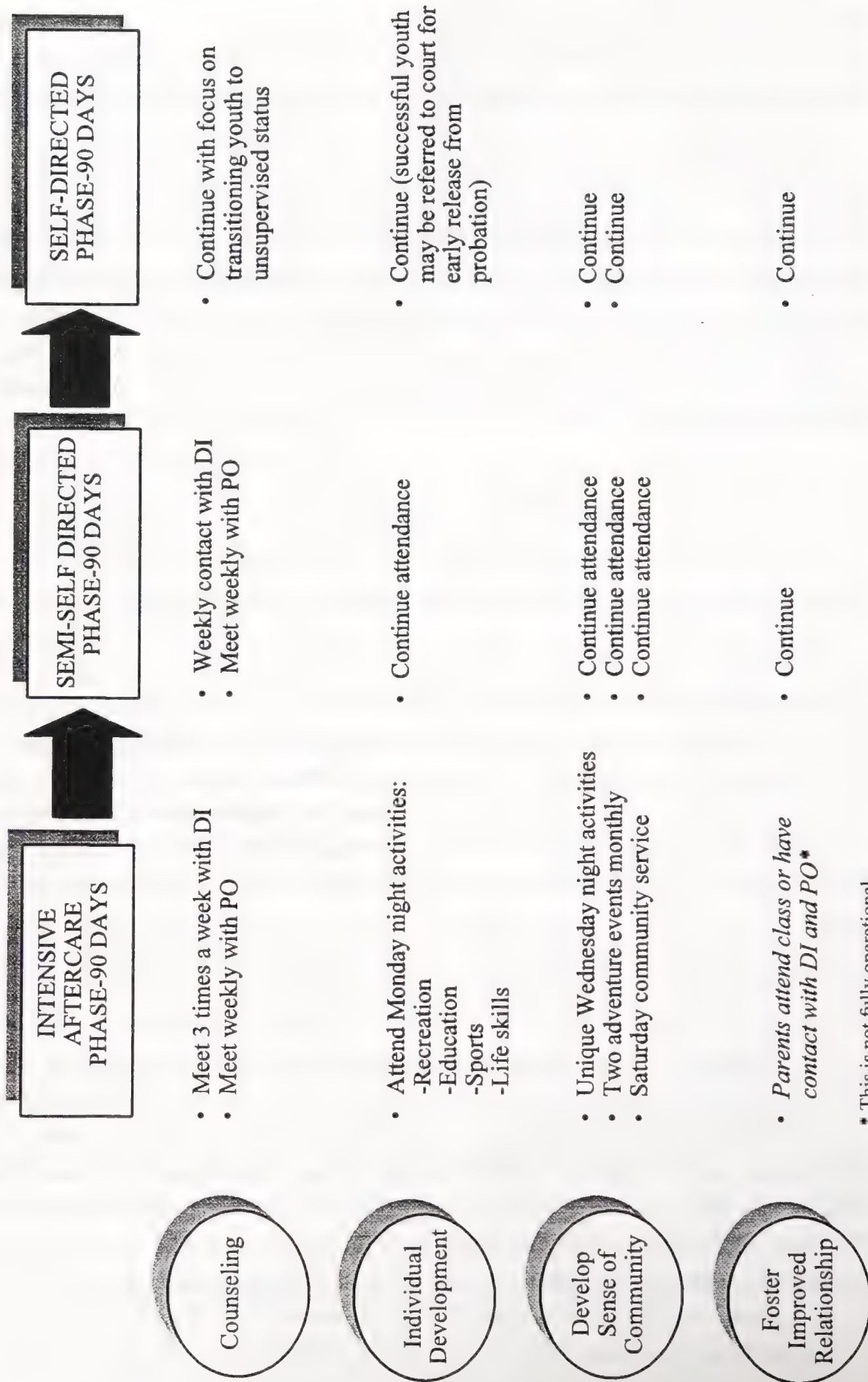
The program was altered to provide a single, localized meeting place for the cadets at the R.V. Taylor Boys and Girls Club. On Monday night, the core aftercare activities include continuation of the life skills and education programs, including electives, such as arts and crafts and organized and individualized sports. Counseling and substance abuse education are offered. Off-site aftercare activities are held Wednesday night, and weekend aftercare events highlight community service and maintaining esprit de corps. Community service includes clean up projects, drilling at community ceremonies and parades, running or walking for charities, and other special projects.

For the six months immediately following the residential phase, cadets also participate in three individualized intensive sessions with the DI and one with the Aftercare Probation Officer each week. The EYC Aftercare staff contact the schools attended by their cadets each week. The Aftercare staff also contact the family every week, preferably in person.

The cadets are held accountable for aftercare attendance and must sign in. An Aftercare Probation Officer, the Aftercare Coordinator and the Rotating DI attend each activity to monitor the cadets' participation. At the onset of the aftercare phase, each cadet signs a contract indicating that he is aware of the EYC expectations of him while he is in the aftercare phase of the program. If the youth breaks the contract, he will be picked up and spend a weekend at the boot camp. If a cadet continually fails to miss aftercare activities, misses meetings with the PO, and is truant from school, he can be considered in Violation of Probation (VOP). Usually, though, the punishment is based on individual situations. It is discussed using a case management approach, with input from the Rotating DI, the Aftercare Probation Officer and the Aftercare Coordinator, and includes counseling with the youth.

The transition from residential school to the community schools is considered to be a strong component of the aftercare program. The two Aftercare Probation officers have responsibility for post-release placement. A representative from the school system comes out to the boot camp to discuss with the cadets what is expected of them once they return to school. Additionally, the Aftercare Coordinator and the Aftercare Probation officers visit the school. The Aftercare Probation officers work to involve the parent in the transition, and to get the parent to participate in the monthly parenting class offered during the aftercare phase.

EXHIBIT II-3 EYC AFTERCARE ACTIVITIES--270 DAYS



* This is not fully operational

1.4 Control Group Treatment Activities

To test the effectiveness of the boot camp, an experimental framework was developed which would enable comparisons of outcomes for youth randomly assigned to participate in the model boot camp intervention with outcomes for youth committed to other settings, including the Alabama Department of Youth Services (DYS) and the James T. Strickland Youth Center. The following paragraphs describe the range of programs and services available to control group youth. These descriptions are based on interviews conducted with Strickland Youth Center (SYC) staff in Mobile in October 1994 and an analysis of program documentation.

Members of the control groups received one or more of the following services through the SYC or DYS:

- Substance abuse treatment
- Educational training
- Vocational training
- Mental health services
- Life skills training including anger management.

A limitation of this interim report is the lack of detailed information on the interventions experienced by individual control group youth. SYC staff indicated that the provision of services for youth were primarily based on individual needs and circumstances.

Residential Programs

If a child is committed to the DYS, he will be taken to the Diagnostic and Evaluation Center located at Mt. Meigs outside Montgomery. The juvenile will stay there for approximately three weeks. During that time, the staff and counselors will decide where the juvenile will be sent and the length of time he will stay. Residential program options in Alabama include three juvenile institutions (or State Schools), four DYS-run group homes, a wilderness program and an Intensive Treatment Unit (located at one of the juvenile institutions).²

Each of the three institutions (or State Schools) has treatment programs with some of the elements of the EYC, including school, counseling, medical treatment, substance abuse treatment and vocational training. The day is similar to EYC without the military structure. One SYC staff described the difference between being institutionalized at the State School and EYC as, "the

²The Juvenile Courts of Alabama. Brochure. Prepared by the Alabama Administrative Office of Courts. January, 1989.

basic difference is that DYS is a breeze for kids; there's not as much structure or hands-on attention because of the volume of kids handled." The average length of stay at the State School is six months.

Probation Programs

The majority of the control group, however, were placed directly on some level of probation.³ Probation is administered through the Strickland Youth Center, which has a range of resources at its disposal. The SYC is comprised of the Mobile County Juvenile Court, the juvenile probation department and a detention facility. The SYC staff include a full time circuit judge, a part time circuit judge, full time prosecutor and public defenders, two psychologists, teachers, 33 probation officers and support staff. On site, it has a ten-bed shelter care facility for status offenders, a 12-bed group home for delinquent boys and a seventy-one bed detention facility. The SYC has provided services to pre- and post-adjudicated Mobile juveniles since its establishment in 1973.⁴

The SYC operates several probation programs that provide a range of treatment and education options for youth on probation. These programs are designed to meet the needs of the parents as well as the youth. In 1975, Parents and Children Together (PACT) was established. This program offers family counseling during the evening and serves approximately 200 families annually. The Chemical Abuse Prevention Program (CAPP) is a four-night drug and alcohol education program that has been funded for the past four years through a state grant. The Lessons in Family Enrichment (LIFE) program is a four night parent education program that teaches appropriate child rearing practices for adolescents between the ages of 13-18. This program has been in operation since 1990.⁵

In 1976, the Community Option Program (Co-op) was established to provide a non-secure residential group home for delinquent boys between the age of 14-18. Youth who might otherwise have been committed to the state training schools are given the option to participate in the Co-op, where they attend public school, engage in weekly counseling, family counseling, educational activities and are transitioned, via weekend passes, back home.

³The Mobile judge did not sentence youth until after the determination was made if the youth would enter the boot camp or was assigned to the control group. We do not know what the status of the experimental youth would have been (incarceration or probation) for their offenses had they not been selected to participate in the experiment.

⁴Application for Grant

⁵Grant application

In 1983, probation officers and psychologists at the SYC established the Adolescent Counseling and Training on Sexuality Program (ACTS) to provide services to male sex offenders. The program is a joint project of the SYC and the Alabama Department of Human Resources Child Welfare Division for Mobile County.

The "Survivors of the Street" (SOS) program was developed in 1991. It targets public housing juveniles on formal probation. The purpose is to assist youth on probation who are identified as being involved in gang activities to change their attitudes about gang membership. Parents are expected to attend, with the child, a weekly 1-1/2 hour class for eight weeks.

Control group youth could be placed on one of three levels of probation. Intensive probation (Level III) provides intensive supervision and support for juvenile offenders. The probation officer is seen on a weekly basis at school, home, and at the youth center. Additionally, a curfew check is made by phone at least weekly. The intensive program is designed to assist the youth when they have go back to school, get their GED, or get into a Job Training Program Act program to find gainful employment.⁶ The youth are required to attend one or more of the three SYC programs described above. Less intensive, or "general," probation (Level I) requires that the probationer meets with Probation Officer twice a month. Level II, or "regular," probation is comprised of more structured activities, yet not as comprehensive as Level-III.

2. PROJECT IMPLEMENTATION AND OPERATIONS

The Mobile boot camp initiative selected and processed its first cohort of 13 youth in April, 1992. This section describes the implementation and operational history of the Mobile project, in accordance with the following framework:

- Management structure
- Funding and resources
- Organization and staffing
- Facilities
- Residential program implementation
- Aftercare issues.

These sections highlight key events, problems and adjustments since the project's inception. Exhibit II-4 provides a chronology of key project events.

⁶Probation Officer's handbook.

EXHIBIT II-4
CHRONOLOGY OF KEY PROJECT EVENTS

-	Bootcamp becomes operational with entry of Cohort 1	APR	1992
		MAY	
		JUN	
		JUL	
		AUG	
		SEP	
-	Second Director of EYC Is Hired	OCT	
		NOV	
		DEC	
		JAN	1993
		FEB	
		MAR	
		APR	
		MAY	
		JUN	
		JUL	
-	Formal Recognition That Aftercare Component Does Not Work	AUG	
-	Third Director of EYC Is Hired	SEP	
-	Program Coordinator Is Hired	OCT	
		NOV	
-	Revamped Aftercare Program Becomes Effective	DEC	
		JAN	1994
		FEB	
-	Last Cohort included in the study completes residential phase	MAR	
		APR	
		MAY	
-	Cadet Aftercare Activities Moved From Boys and Girls Club to Infracenter	JUN	
		JUL	
-	Cadet Aftercare Activities Return to Boys and Girls Club	AUG	
		SEP	

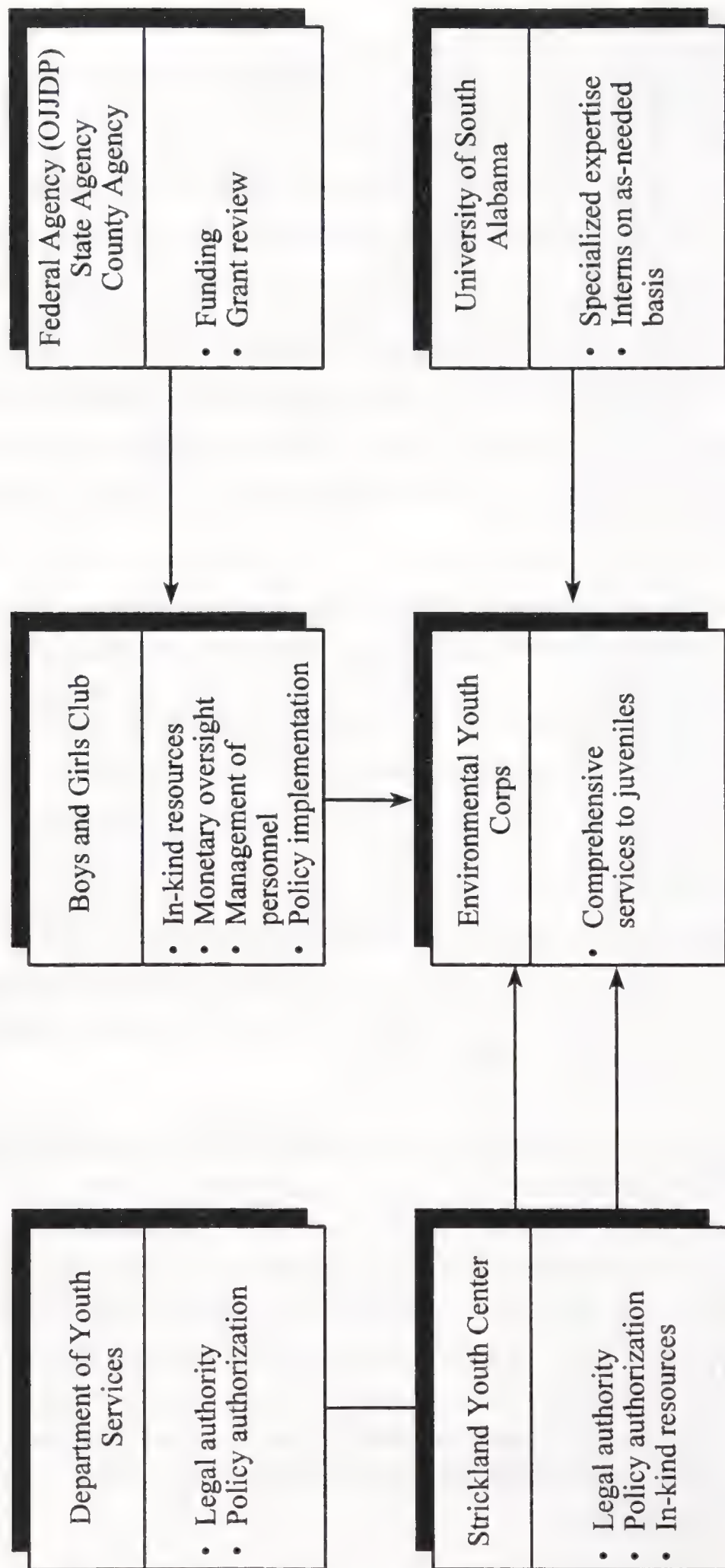
2.1 Management Structure

In Mobile, the demonstration program is comprised of a public-private partnership of the James T. Strickland Youth Center of the Mobile County Court, the Boys and Girls Club of Greater Mobile, and the University of South Alabama. The partnership allows each entity to be responsible for what it had expertise in doing: Strickland Youth Center was responsible for the juvenile justice process, the Boys and Girls Club was responsible for fiscal oversight, design and staffing of the program operations, and the University of South Alabama was responsible for program planning, evaluation services and the educational and life skills program assistance. Mobile County's Chief Probation Officer and the Executive Director of the Boys and Girls Club serve as Co-Project Directors. During the study period, they jointly supervised the EYC Director who in turn managed both the residential and aftercare phases. Exhibit II-5 depicts the structure of the EYC partnership.

The public-private partnership is largely a "good faith" agreement rather than a legally binding contract. Strickland Youth Center manages the intake and sentencing process and dedicated three probation officers exclusively to the EYC. These officers provided case management supervision for youth in all phases of the program. The University of South Alabama provides technical assistance and interns, but has not played as big a role as originally proposed. The Boys and Girls Club of Greater Mobile has gradually broadened its control over the program. For example, whereas in the original plan the Chief Probation Officer/Coordinator at the Strickland Youth Center was intended to be the Principal Project Director, the Executive Director of the Boys and Girls Club was, at the time of our site visit in October 1994, the direct supervisor of the EYC staff. The EYC director now reports directly to the Executive Director of the Boys and Girls Club to reduce any ambiguity of having "two bosses," and to avoid communication problems that have arisen in the past.

In the first year of operations, there were communication issues between the EYC and SYC staff. Three SYC probation officers were assigned to EYC. Their offices are located in the EYC facility, and they are considered to be aligned with EYC. They serve as liaison between the EYC and the regular SYC probation officers who recommend the youth for the EYC screening process. EYC staff acknowledged that the relationships between the two groups is a "high maintenance relationship," since the SYC probation officers ultimately control the flow of referrals into the candidate pool. When the relationship was strained, in the first year of operations, the volume of SYC referrals dramatically decreased and disrupted EYC operations. The partnership between these two groups has greatly improved, and staff were optimistic that it would continue to be productive.

EXHIBIT II-5 **STRUCTURE OF EYC PARTNERSHIP**



2.2 Project Funding and Resources

Since the project's inception, the Mobile initiative has marketed the EYC and its philosophy to state and local funding sources. Originally, the majority of the funding came from Federal monies. Over time, with the reduction in funds from OJJDP and the direction of the Co-Project Director, who has strong community support due to his success with the Boys and Girls Club, the state has become the central funding source. The DYS funds one-half of the Mobile County juvenile probation officers salaries, and has given Mobile a block grant to assist in community program development. The DYS also pays more than one-half of the operational expenses of the alternative school used by the Mobile juvenile justice system. The Executive Director of the Boys and Girls Club envisions that the EYC would evolve into an alternative program that would be funded by multiple sources including state, county and city monies.

2.3 Organization and Staffing

The Mobile demonstration project has experienced a high level of staff turnover. As of October 1994, when Caliber made its site visit, there had been three directors, three aftercare coordinators, three life skills coordinators and numerous changes in DIs. The Aftercare Coordinator and senior DI positions turned over again a month later. Exhibit II-6, on the following page, illustrates the organizational structure of the EYC.

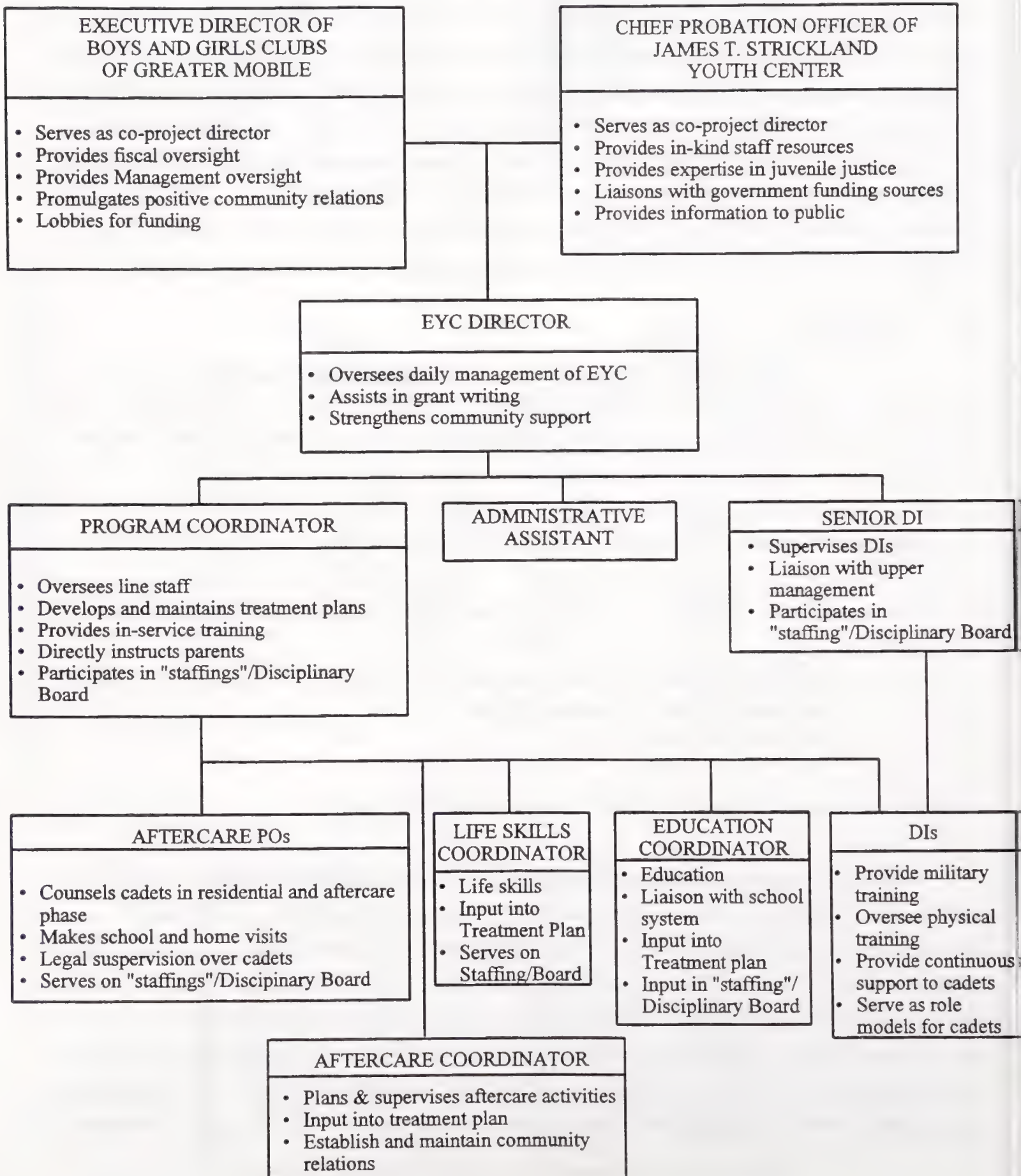
Several factors impacted the organization and staffing of the Mobile demonstration:

- Division between EYC staff over the basic philosophy of the boot camp initiative
- Reduction in federal monetary support
- Nature of the work.

Division Between Staff Over the Basic Tenets of the Program

One factor contributing to staff tension and turnover was disagreement over the service delivery mix. Staff were queried about their opinions on the philosophy of the program. Management staff indicated that the service delivery should be more therapeutic, while the line staff maintained that the military emphasis was the cornerstone of the program. The Executive Director of the Boys and Girls Club, the Chief Probation Officer at Strickland Youth Center, and one of the Aftercare Probation Officers preferred a more "therapeutic" approach to a dominant military approach. One respondent stated, "The military approach is a rapid way of getting the child under control so that they then can be treated and educated." The Program Coordinator, the

EXHIBIT II-6 EYC ORGANIZATION AND STAFFING



Dis, the Life Skills Coordinator and one Aftercare Probation Officer indicated that the military philosophy was best. Comments included:

- "If it was more therapeutic, it wouldn't make a dent."
- "Military training will leave an indelible mark on their souls."
- "Kids need the military structure, they need to learn respect and self control."

Another point of contention was the length of stay in the boot camp. The Co-Project Directors differed over the issue of how long the residential phase should last. One indicated that three months was an adequate period of time to produce "long-term change", while the other reported that 120 days may be adequate, but many youth may need a longer time in the residential phase. His opinion was, "The length of stay should be geared to kids needs, not the system's needs." Line staff also differed over the amount of time needed to modify behavior. Comments included:

- "The current length of stay is fine."
- "Ninety days is too short; you can't say after 90 days, 'OK, now we're going to throw you to the wolves.' They need to be nurtured slowly."
- "Maybe the boot camp should last for 6 months, and aftercare for 3 months."
- "It depends on the child; the length of stay should depend on the individual."

The inability of the program to retain EYC directors reflects in part the inability of the program to settle on an acceptable mix. Each of the different EYC directors had his own style and preference for program philosophy. For instance, some staff felt two of the directors were "too militaristic," while others indicated that a third was "too soft" and "too therapeutic." As one respondent stated, "It's very difficult to find the appropriate person for the position of director. Retired military officers have so little understanding of adolescents that they couldn't set up the programs. You need residential program experience, delinquency experience, counseling, education, plus military structure and discipline." Other staff disagreed, and felt that one of the directors, who was a retired military officer, and was reportedly respected by the EYC cadets, understood exactly how to operate the program because he had a strong military background, yet "had the kids' interest at heart." As the program makes the transition from demonstration to permanent alternative intervention, one staff volunteered, "the next candidate should have experience in treatment, a military background, demonstrate an ability to work with the community, criminal justice background, as well as fund raising and grant writing experience."

In spite of the disagreement among staff over the program service delivery mix, all staff indicated that the boot camp approach is an effective alternative to the traditional treatment of juvenile offenders. Staff offered reasons why they believe the boot camp alternative is effective:

- "The boot camp works because it builds on relationships; it's not warehousing."
- "The current DYS programs are not designed for today's youth who are more serious offenders. The current delinquent system is not realistic; it was developed for kids of the 1950s."
- "The boot camp is comprehensive; the child gets individualized attention because there is a higher staff/student ratio. Also, it's close to home so you can involve the family."

Reduction of Federal Monetary Support

A reduction in federal funding resulted in staff cutbacks and, subsequently, the perception that positions at EYC were only temporary. Although EYC management turned to state and local funding sources for additional monetary support, they were unable to ensure that further cutbacks would not occur. According to staff interviews, turnover was often attributable to staff's need for more stable and better paying employment.

Nature of the Work

Finally, the nature of the jobs affected staff turnover. Each job had its own share of difficulties. By far, the DIs are the most susceptible to "burnout." The DI role is to be tough and confrontational, and staff theorized that, "DIs get burnout from the emotionality and volatility of the work." They also believed that the DI component was understaffed and DIs were underpaid. The DIs indicated that they were worried over the security of their jobs because of funding issues as well as "political issues" that arose from differing management philosophies. DIs reported there was turnover because some staff who had been with the program since its inception were dismayed to see it deviate from the original design. By the end of the first year of operations, only one third of the initial DIs remained.

The Life Skills Coordinator position was also difficult to maintain. This position was held first by individuals who did not have a college degree, then by an individual with a clinical background. One staff commented, "Nobody seems to be able to figure out the purpose of the position or the position qualifications." Staff recounted stories of how none of the Life Skills Coordinators were popular or effective with the EYC cadets. Similarly, the first Aftercare Coordinator did not appear to have an aptitude for establishing a rapport with the cadets, building

community rapport or establishing community relations. The Aftercare Coordinator who was on board at the time of the October 1994 site visit did appear to understand adolescents and to have a better understanding of the community and its role in supporting the EYC cadets.

2.4 Facilities

Finding facilities within which to implement the program was one of the greatest hurdles for the EYC. Two key objectives remained unmet as of our site visit:

- The EYC continued to be located in a temporary facility
- Many physical resources, including the ROPES course, remained under-utilized.

One of the most difficult challenges encountered by the project was residential facility development. The original intention was to build a boot camp in a 40-acre wooded area owned by the Boys and Girls Club. The facility would include a team challenge course, dining hall, bath house, crafts hut, covered pavilion, pump house, general assembly area, club house, nature walks, a gardening area and a caretaker's residence. Legal battles over zoning changes ensued over the original site, however. Citizens protested as various alternative sites were selected because they did not want "juvenile delinquents" in their neighborhoods. The prospect of a lengthy legal battle and a dictate from OJJDP to find a site resulted in the establishment of an alternative "temporary site" on the grounds of Strickland Youth Center. This facility includes a barracks building, a trailer for the administrative office, trailer for the academic and life skills course, a challenge course and a utility trailer. Meals are taken at the SYC located in the building next door.

The advantage of the location is close coordination between SYC and EYC. The disadvantage is that the boot camp drilling and outside activities are often executed in public view (the Strickland Youth Center is located in a residential section of Mobile), and the military aspect (i.e. the "'In your face' attitude of the DIs") was reported by staff to be intimidating and disturbing to many of the public.

2.5 Residential Program Implementation Issues

As suggested above, the boot camp program evolved over time as staff grappled not only with program philosophy, but a wide range of practical implementation issues. These included, especially, treatment planning and the inclusion of the family in the program.

Individualized Treatment Plans

EYC staff reported that the planned three-month reviews of the youth individual treatment plans did not always occur because of time constraints. In addition, the program struggled with developing approaches to keep all of the staff involved in and using the plans.

Though the purpose of the individualized treatment plan was to engage all the key players in the youths' boot camp experience, EYC staff had varying perceptions of their own impact on the development and maintenance of the plan. The Aftercare Probation Officers indicated that they had "a lot of input, hashed out ideas and made recommendations" and that the Program Coordinator relied on their files for information. In addition to the "staffings," the Aftercare Probation Officers reported that they worked well with the DIs and collected information on cadets informally from DIs. The DIs, though they attend "staffings," felt that they did not have direct impact on the treatment plan development, but rather influenced it indirectly through their contacts with the Aftercare Probation Officers. The Life Skills Coordinator reported that he did not "use the treatment plan" to guide the development of his program content, but instead used the information that he obtained informally from his discussions with the DIs on the needs of the cadets.

Inclusion of the Family

When the EYC Program Coordinator came on board in October 1993, she instituted a family program in both the residential and aftercare phases. In the residential phase, parents receive an orientation to the EYC when their child arrives. Families are encouraged and expected to come every Monday night to participate in a parenting program for eight weeks. The objective of the parenting program is to prepare the parents for when the child returns home, and to gain the parent's support for the program. The program curriculum was developed by the EYC Program Coordinator and covers topics on active parenting techniques, discipline, communication, and anger management. EYC staff try to involve the parents "from day one" because all staff interviewed agreed that a supportive family was one of the strongest predictors of success in the EYC program. Parents are encouraged to write to their child; however, the letters are opened to determine if they include any potentially harmful contents. The probation officer is constantly in contact with the parents, and DIs may contact parents.

Program efforts to involve parents in the program appeared to be fairly successful. The parent attendance rate was reported to be fairly high. EYC staff reported that most parents feel that the boot camp environment is beneficial for their child, and that parents feel a sense of pride as they watch their child march and drill. Parents must sign in, and the attendance rate is

reported to average around 80 percent. EYC staff described most parents as being shy or upset at what they perceive to be intrusion into their private family life; however, as they progress in the program they become more comfortable with the process and the staff. Parents were reported to be concerned about their child's welfare at the boot camp, and anxious because this is the first time they have been away from their son. As the residential phase draws to a close, parents become apprehensive about their child's homecoming because they are not sure about how their son has changed.

Staff Training

Also beginning in October 1993, staff in-service training was conducted monthly on the following topics: team work, juvenile law, suicide and abnormal behavior, gangs and street life, behavior modification, burnout and stress management, substance use assessments, and dealing with negative emotions. The objective of the in-service training is to promote professional growth and superior performance.

2.6 Aftercare Issues

An effective aftercare program has been difficult to establish. This section identifies the problems experienced with the original aftercare model and then describes the benefits and challenges of the restructured model implemented in late 1993.

Problems with the Original Aftercare Model

The original aftercare design, as proposed by Mobile, was not accepted by the cadets, and therefore, they did not comply with the expectations of the program staff. EYC staff theorized that the original premise of the aftercare design was unrealistic and "pollyanna" in its approach. According to staff, the Boys and Girls Club was not seen as age or activity appropriate by the cadets. The cadets did not feel like they had the same interests or backgrounds as the younger members of the Boys and Girls Clubs. The activities that were offered, such as leather tooling and making collages, did not seem to be particularly interesting or challenging to cadets.

Providing activities at seven different locations also caused problems. Cadets were to attend activities at the location nearest to them. Many locations were not accessible to cadets, however, or were considered dangerous because of gang activities. The fragile esprit de corps that had been nurtured during the residential phases disintegrated as cohorts were dispersed among different locations. Another difficulty posed by the seven different locations was the lack of aftercare staff to monitor attendance at each facility.

Another obstacle to successful implementation of the aftercare component was that it was highly dependent on the personality of the Aftercare Coordinator. As of October 1994, there had been three different coordinators, each with a distinctly different style and educational background. Ideally, according to EYC staff, the Aftercare Coordinator should be a dynamic, street-wise individual with the ability to motivate and counsel youth, as well as to generate community support for the program. The Aftercare Coordinator should plan relevant activities that would lead to youth morale development and a sense of community service. According to the staff interviewed during the site visit, the first two Aftercare Coordinators did not meet these criteria. The third Aftercare Coordinator was considered to have the right mix between educational background, military background and community "savvy" to implement the aftercare phase as it was intended.

Benefits and Challenges of the Restructured Model

The revamped aftercare program that was implemented in December 1993 continued to be refined to increase contact with youths during the six months after release from the residential program. In January 1994 a technical assistance visit by OJJDP included an assessment of the Aftercare Program by Drs. David Altschuler and Troy Armstrong, nationally recognized experts on aftercare programs; Dr. Armstrong then continued to work with the Mobile program over the next several months. A major change was introduced in August 1994; although the change did not affect the boys included in this study, it is described here to provide a full picture of the evolution of the aftercare program

Because the transition phase was considered to be a "weak link" in the program, the DIs role was expanded to involve them in the transition. In August 1994, three drill instructors became "Rotating DIs." The DI now rotates with his class; he works with them while they are in the boot camp, then for the first three months of the aftercare period he maintains an interactive relationship with the child, his family and his community. The DI's roles include providing individual support to each cadet in his group, increasing the supervision of the youth and accountability during aftercare activities, as well as providing transportation to and from aftercare activities in two EYC-owned vans. The rotating DI supplements the Probation Officers' duties by also visiting the cadet's school and home to identify potential problems and to provide cadets with continuity of support. This new component also provides the DI with an opportunity to avoid burnout from his military role during the residential phase and allows time for the DI to solidify his relationships with cadets and bring about positive changes as a role model. After the first crucial ninety days, the DI rotates back to the residential phase and resumes his boot camp DI responsibilities until that class graduates.

The new aftercare component was seen as beneficial by all the EYC staff. The DIs were enthusiastic because it gave them a break from the rigors of the boot camp and provided them with an outlet to develop meaningful relationships with their cadets. The DIs recounted anecdotal evidence of how the cadets appeared to be benefitting from their new role in aftercare. Cadets who bonded with the DI during the residential phase, and often viewed him as a role model, were now able to maintain that unity and support. To maintain the fragile relationship during the first 90 days, Rotating DIs carry beepers to respond to the child at any time. They report that they have intervened in family disputes, trouble at school, and may bring the child to a crisis center if the situation is appropriate for such action. It was anticipated by DIs that the cadet could call the DI for support; now the parents have also begun to contact DIs when they feel like they need support in handling their child.

The Aftercare Probation Officers also benefit from the Rotating DI because the DIs provide them with additional information about the youth and his homelife. The Rotating DIs supplement the Probation Officer's legwork by conducting supplemental school visits and home visits.

An issue that did affect some of the boys in the study was the change in location of the aftercare program in the summer of 1994. The cadets were asked not to use the R.V. Taylor Boys and Girls Club during the summer, and found a facility in the Infracare Center in Alabama Village in Pritchard, which is considered to be a dangerous neighborhood. The facility was made available to EYC without restriction and without cost, 24 hours a day. It has a large gym, three classrooms, a commercial kitchen, an arts and crafts room and several smaller rooms. It is reportedly clean, but "a little run down." The EYC staff reportedly found it ideal for their purposes, however.

When the summer was over, the Executive Director of the Boys and Girls Club requested that activities resume at the R.V. Taylor facility. The EYC staff lobbied to keep the aftercare activities at the Infracenter. In a memo submitted to the Co-Project Directors in August 1994, the EYC Director described why EYC staff thought that the aftercare activities should remain centered at the Infracenter:

- Cadet attendance increased. DIs reported that the cadets enjoyed activities at the centralized facility because "it was theirs." They could directly influence what activities would be provided, such as basketball games. Cadets enjoyed the homogeneity of "hanging with each other since they all shared the boot camp experience," which bolstered positive peer relationships.
- The Infracenter was located close to the proposed permanent site in Alabama Village. It was recommended by EYC staff that if the cadets remained at the

center, they could begin community service activities and win acceptance within the community.

- Aftercare activities were restricted to Monday evening at the R.V. Taylor Center. This kept aftercare teachers from attending one session monthly due to the Mobile County schools monthly in-service training schedule. If the cadets stayed in the current center, teachers could provide services on Wednesday evenings, since EYC would have control over the operating schedule.

It was decided, however, that the aftercare activities would resume at the R.V. Taylor Center, when facilities and equipment were considered better.

Among other issues that arose during the aftercare program, parent involvement proved to be a particular challenge. Parents reportedly participated in the residential program, but were not active in the aftercare phase. It was envisioned that parents would attend a monthly parenting class; however, this aspect of the program has been, according to staff, "disappointing". Parents note numerous reasons for not attending the aftercare program, such as lack of transportation, work schedules and lack of child care.

Another objective of the aftercare component was to improve the youth's employability. The difficulties in finding work for the EYC youth have been numerous. The main problem is that most of the youth are too young to hold jobs that require more than minimal skills. This is related to another challenge, getting transportation to work. Few of the EYC youth have access to a car; most must take public transportation. The EYC was trying to get bus passes at a reduced rate. EYC staff concentrate on getting the JTPA summer job openings and working within the community to reduce the stigma of EYC, so that more employers are willing to hire EYC cadets. Most cadets could not pay restitution to their victims because they did not have a way to legitimately earn enough money to do so.

The EYC staff have learned that community support is essential for a successful aftercare component. All of the staff interviewed reported that the Rotating DIs were excellent representatives of the EYC, and in their efforts to assist their cadets, were also making an extremely favorable impression on the community. One of the DIs had grown up in one of the toughest Mobile neighborhoods, and he was reported by EYC staff to be especially effective in motivating the youth and the family to participate in aftercare activities.

Simultaneously, the EYC staff have tried to strengthen community support in overcoming issues arising from the effort to mainstream EYC youth back into the community school system. Issues included:

- Working with the school system to determine the grade level of a youth after leaving the residential phase, since the school system did not recognize academic progress made by the youth while at EYC.
- Working with the school system to accept the grades youth received while enrolled in EYC.
- Understanding the procedures involved when EYC staff advocated that a youth transfer to a different school to avoid gang affiliation or vendettas.
- Reducing the stigma experienced by EYC youth because they have been involved in the judicial system.
- Responding to school behavior problems. Staff cited a variety of reasons why cadets have problems at school, e.g., "teachers stereotype the kids as trouble makers"; it is difficult for youth to "randomly enter school in the middle of a quarter after the 90 days in the residential program"; former gang members cannot go back to their previous school for safety reasons; "there are academic problems because no one cares"; and it is difficult for some youth to make the transition from the highly structured environment of the boot camp to a less structured public school system.
- Getting state financial aid for youth who are in the EYC. According to state law, after a child is out of school for two weeks, the school district must take him off the attendance rolls and thus stops receiving state financial aid for that child. But, since EYC is not accredited to operate a school and has failed to work out an arrangement whereby the EYC academic program could be affiliated with the school district, they are not eligible for state aid. EYC is trying to work out an agreement where the state aid could be shared with the school district, as it would represent a significant source of local funding.

To overcome these challenges, the EYC staff have developed networks and strengthened linkages and partnerships within the school system and community. EYC staff are working toward improving the community's impression of the EYC and its cadets, and to improve the school system/community and EYC interface.

Summary of Continuing Aftercare Issues

At the time of Caliber's site visit, the revised aftercare program was still evolving. Both EYC and SYC staff indicated that they were enthusiastic and supportive of the Rotating Drill Instructor concept. Nevertheless, the Rotating DI may be a candidate for burnout as much as when he operates as a boot camp DI. The responsibility of dealing with the youth and his family, in a less structured and less supportive environment, has the potential to be as demanding and

emotionally volatile as the highly structured environment in the residential phase. The Rotating DIs must be trained in a number of areas to prepare them for their expanded role.

The EYC staff mentioned other aftercare issues that they are contending with:

- There is a need to increase the transition phase to adequately prepare the cadets for life after boot camp.
- There is a need to facilitate a smoother transition to public schools.
- The EYC staff are planning to explore new techniques to engage more parents in aftercare activities, such as supplementing activities with food and fun, and providing activity-based counseling geared to attract low income and less educated parents.
- EYC needs to actively engage youth in aftercare by providing activities that are relevant, build self esteem, promote personal growth and build on the esprit de corps established during the residential phase.
- Logistical challenges must be overcome. There are not enough staff to monitor attendance; it is hoped that the Rotating DIs will provide additional support. Logistically, it is difficult for many cadets to find transportation. Currently, the Rotating DIs provide transportation with two vans, and to date, this has increased attendance because the presence of the DIs ensures cadet accountability.
- Activities need to be planned and structured; staff reported that one of the lessons they learned from the failed program was that cadets need the structure to reenforce what they learned during the residential phase.
- New ways are needed to provide vocational training and employability skills to a group of youth who are between the ages of 13-15 and who cannot pay restitution.

Overall, the EYC staff indicated that they were confident, especially in the light of their successes over the past year, that the newly revamped aftercare component would be successful and more effective.

III. YOUTH CHARACTERISTICS AND PROGRAM OUTCOMES

III. YOUTH CHARACTERISTICS AND PROGRAM OUTCOMES

This chapter presents a description of the characteristics of the youth selected for the project and the outcomes of the various phases of the boot camp demonstration in Mobile, Alabama. The chapter is organized in the following sections:

- Experimental and control group comparability
- Residential phase outcomes
- Aftercare phase outcomes.

Descriptive information contained in the chapter was compiled from interviews conducted in Mobile among management and operations staff in October 1994. The analyses are based on data compiled from a variety of sources, including data collection forms used over the course of the project, a criminal history data base compiled and supplied by Mobile Juvenile Court staff, and program records obtained from program staff during field visits.

1. EXPERIMENTAL AND CONTROL GROUP COMPARABILITY

A total of 374 youths were successfully screened and randomly assigned to the experimental (187) and control (187) groups between April 1992 and November 1993. This section presents a detailed comparison of critical youth background, psychological, behavioral, and criminal history characteristics across the two groups. The assessment of group comparability is presented in the following framework:

- Demographic and family characteristics
- Education experiences
- Drug and alcohol involvement
- Criminal history and placement experiences
- Committing offense and risk assessment.

Data presented in these sections were extracted from the Intake Form and from criminal and social history records maintained by the Mobile Juvenile Court. Comparability between the two groups, of course, is an assumption of random assignment, and constitutes a precondition for analyses and findings presented in this and the next chapter. An analysis of control group and experimental group differences is necessary to identify any factors that must be controlled for in outcome analyses. In order to determine areas of significant difference between the two groups, Chi Square tests were run on the descriptive variables. Unknown and missing cases are not

included in test cases¹. Unless otherwise indicated, any tests of significant between-group differences were conducted at the .05 level of confidence. The actual significance levels are presented in the charts.

1.1 Demographic and Family Characteristics

Exhibit III-1 presents a comparison of demographic and residence characteristics across the experimental and control groups. As the exhibit demonstrates, no statistically significant differences were found between the two groups. The modal age at the time of transfer to boot camp or to DYS facilities was 16, with 16-year-olds accounting for 27 percent of the experimental group and one-third of the control group.

In addition, the groups closely resemble one another in racial/ethnic composition: approximately two of three experimental (65%) and control (62%) group youths are African-American, followed by Whites (approximately 35% of the experimental and 38% of the control groups). There were no Hispanic youths in the study. Nearly 37 percent of all experimental youths and 31 percent of the control youths are products of relationships in which the natural parents never married. Only approximately one in every ten experimental (11%) and 20 percent of the control youths have natural parents whose marriage continues intact.

At the time of the committing offense and their subsequent entry into the study, youths were predominantly living in single-parent homes (54% of experimental and 45% of control youths, respectively). Approximately one in every six experimental (16%) and control (15%) group youths had been living in a home with a parent and stepparent; only 15 percent of experimental and 22 percent control group youths had been living in a home with both natural parents at entry. The remaining youths in both groups were living in arrangements in which neither natural parent was a co-resident.

Court records were examined to determine the extent to which youths had been placed out of the home prior to the committing offense by a court or government agency as a result of a delinquency adjudication or a voluntary or involuntary change of custody. As the exhibit demonstrates, 16 percent of experimental and 22 percent of control group youths were found to have experienced at least one out-of-home placement prior to entry into the study. These placements excluded commitments to DYS or state school facilities, but included permanent or

¹ The presentations exclude eleven control youths for whom no demographic and criminal history information was available. These youths were selected to participate and randomly assigned, but subsequently in the screening process used in Mobile were disqualified and not included in the experiment.

EXHIBIT III-1
DEMOGRAPHIC AND RESIDENCE CHARACTERISTICS*

CHARACTERISTIC	EXPERIMENTAL		CONTROL		CHARACTERISTIC	EXPERIMENTAL		CONTROL	
	N	%	N	%		N	%	N	%
AGE AT TRANSFER					YOUTH RESIDENCE (At Committing Offense)				
≤ 13	28	15.0%	18	10.2%	Both Natural Parents	28	15.0%	39	22.2%
14	33	17.6%	38	21.6%	Single Parent Home	100	53.5%	79	44.9%
15	47	25.1%	39	22.2%	Parent and Step Parent	30	16.0%	26	14.8%
16	51	27.3%	59	33.5%	Other	29	15.5%	32	18.2%
≥ 17	28	15.0%	22	12.5%	TOTAL	187	100.0%	176	100.0%
TOTAL	187	100.0%	176	100.0%					
ETHNIC BACKGROUND					OUT-OF-HOME PLACEMENT				
African-American	121	64.7%	118	62.0%	Yes	29	15.5%	39	22.1%
White	65	34.8%	58	38.0%	None Reported	135	72.2%	123	69.9%
Other	1	0.5%	0	0.0%	Unknown	23	12.3%	14	8.0%
TOTAL	187	100.0%	176	100.0%	TOTAL	187	100.0%	176	100.0%
NATURAL PARENTS' MARITAL STATUS					RUNAWAY FROM HOME				
Married	20	10.7%	35	19.9%	Never	55	29.4%	63	35.8%
Separated/Divorced	68	36.4%	67	38.1%	Once	24	12.8%	24	13.6%
Mother Deceased	1	0.5%	5	2.8%	Two or More	48	25.7%	47	26.7%
Father Deceased	16	8.6%	10	5.7%	Unknown	60	32.1%	42	23.9%
Never Married	69	36.9%	54	30.7%	TOTAL	187	100.0%	176	100.0%
Unknown	13	7.0%	5	2.8%					
TOTAL	187	100.0%	176	100.0%					

* No differences were found to be significant between the groups.

temporary removal of the youth by the court as a result of home conditions or parental inadequacies (involuntary), or voluntary custody transfers from the natural parents to other relatives or to proctor or foster homes; temporary detention experiences, as a consequence of an arrest or court filing, were not counted as a prior placement. A considerable proportion of youths (39% of experimental and 40% of control) were reported as having run away from home at least once prior to entry into the study.

Evidence might suggest an intergenerational link between exposure to behavior problems of parents and subsequent problems exhibited by children. As Exhibit III-2 demonstrates, 19 percent of experimental youths and 21 percent of control youths have at least one parent with a criminal history, while 10 percent of experimental and 11 percent of control youths have at least one parent against whom there is recorded evidence of past abuse or neglect of a child. Excluding unknown cases, more than one-third of experimental and control youths have at least one parent with some history of substance abuse problems (35% and 38%, respectively). At the same time, 97 percent of experimental and 93 percent of control youths were reported to be presenting discipline problems in the home. Excluding unknown cases, nearly two-thirds of experimental youths (64%) and more than half of all control youths (58%) were described as having some history of fighting (minor or major), while 41 percent of all experimental and almost half (49%) of control youths were described as having some history of gang involvement.

No differences in parent and youth behavior problems among the experimental and control groups were found to be significant.

1.2 Education Experiences

As Exhibit III-3 illustrates, no significant differences were found in the education experiences of experimental and control group youths. At the time of the committing offense, more than three-fourths of experimental (84%) and control (76%) youths were enrolled in school, though the majority of both groups were demonstrating a poor rate of attendance. Of those youths reported to be attending school at the time of the committing offense, 28 percent of experimental and 27 percent of control youths attended 13 or fewer days of the last full month of school. Not surprisingly, nine of every ten experimental (95%) and control (91%) youths were reported to be demonstrating disciplinary problems at school, currently or when last enrolled. Excluding unknown cases, approximately 81 percent of experimental youth and 85 percent of control youth had been suspended from school. Excluding unknown cases, nearly six percent of experimental and 11 percent of control youths were reported as having been expelled from school.

EXHIBIT III-2 **PARENT AND YOUTH BEHAVIOR PROBLEMS***

PARENT BEHAVIOR PROBLEMS...				YOUTH BEHAVIOR PROBLEMS...					
PROBLEM	EXPERIMENTAL		CONTROL		PROBLEM	EXPERIMENTAL		CONTROL	
	N	%	N	%		N	%	N	%
PARENT WITH CRIMINAL HISTORY					YOUTH DISCIPLINE PROBLEMS AT HOME				
Yes	36	19.3%	37	21.0%	None	5	2.7%	12	6.8%
None Reported	143	76.5%	122	69.3%	Minor	93	49.7%	84	47.7%
Unknown	8	4.3%	17	9.7%	Major	89	47.6%	80	45.5%
TOTAL	187	100.0%	176	100.0%	TOTAL	187	100.0%	176	100.0%
PARENT WITH ABUSE/NEGLECT OF CHILD					YOUTH HISTORY OF FIGHTING***				
Yes	19	10.2%	19	10.8%	None	57	30.5%	62	35.2%
None Reported	166	88.7%	154	87.5%	Minor	72	38.5%	63	35.8%
Unknown	2	1.1%	3	1.7%	Major	31	16.6%	22	12.5%
TOTAL	187	100.0%	176	100.0%	Unknown	27	14.4%	29	16.5%
					TOTAL	187	100.0%	176	100.0%
PARENT WITH SUBSTANCE ABUSE PROBLEM**					YOUTH GANG INVOLVEMENT				
Yes	41	21.9%	43	24.4%	None	94	50.3%	81	46.0%
None Reported	75	40.1%	71	40.3%	Minor	45	24.1%	59	33.5%
Unknown	71	38.0%	62	35.2%	Major	32	17.1%	27	15.3%
TOTAL	187	100.0%	176	100.0%	Unknown	16	8.6%	9	5.1%
					TOTAL	187	100.0%	187	100.0%

* No differences were found to be significant between the groups.

** Excluding unknown cases, valid percents are: 35.3% yes, 64.7% none for experimentals; 37.7% yes, 62.3% none for controls.

*** Excluding unknown cases, valid percents are: 35.6% none, 45.0% minor, 19.4% major for experimentals; 42.2% none, 42.9% minor, 15.0% major for controls.

EXHIBIT III-3
SCHOOL ATTENDANCE AND EDUCATION STATUS*

CHARACTERISTIC	EXPERIMENTAL		CONTROL		CHARACTERISTIC	EXPERIMENTAL		CONTROL	
	N	%	N	%		N	%	N	%
SCHOOL ENROLLMENT AT ARREST					LAST YEAR SCHOOL COMPLETED				
Not Enrolled	26	13.9%	37	21.0%	6th Grade or Below	40	21.4%	43	24.4%
Enrolled	158	84.4%	133	75.6%	7th-8th Grade	111	59.4%	98	55.7%
Unknown	3	1.6%	6	3.4%	9th Grade	19	10.2%	24	13.6%
TOTAL	187	100.0%	176	100.0%	10th Grade or Higher	10	5.3%	3	1.7%
					Unknown	7	3.7%	8	4.5%
					TOTAL	187	100.0%	176	100.0%
ATTENDANCE OF YOUTHS ENROLLED					YOUTH SUSPENDED FROM SCHOOL**				
0-13 Days/Month	44	27.9%	36	27.1%	Yes	122	65.2%	130	73.8%
14-17 Days/Month	58	36.7%	44	33.1%	No	29	15.5%	23	13.1%
18-20 Days/Month	56	35.4%	53	39.8%	Unknown	36	19.3%	23	13.1%
TOTAL	158	100.0%	133	100.0%	TOTAL	187	100.0%	176	100.0%
DISCIPLINE PROBLEMS AT SCHOOL					YOUTH EXPELLED FROM SCHOOL***				
None	9	4.8%	14	8.0%	Yes	7	3.7%	12	6.8%
Minor	97	51.9%	72	40.9%	No	112	59.9%	102	58.0%
Major	80	42.8%	88	50.0%	Unknown	68	36.4%	62	35.2%
Unknown	1	0.5%	2	1.1%	TOTAL	187	100.0%	176	100.0%
TOTAL	187	100.0%	176	100.0%					

* No differences were found to be significant between the two groups.

** Excluding unknown cases, valid percents are: 80.8% yes, 19.2% no for experimentals; 85.0% yes, 15.0% no for controls.

*** Excluding unknown cases, valid percents are: 5.9% yes, 94.1% no for experimentals; 10.5% yes, 89.5% no for controls.

More than three-fourths of all experimental (81%) and control (80%) youths had completed the eighth grade or below at the point of entry into the study. A considerable majority of experimental and control youths were below the grade level appropriate for their age, by virtue of having repeated earlier grades due to failure or expulsion. No differences were found to be significant between the two groups.

1.3 Drug and Alcohol Involvement

As Exhibit III-4 demonstrates, more than half of youths in both groups have used alcohol. Approximately 63 percent of experimental youths reported alcohol use, compared with 56 percent of control youths, while 48 percent of experimental youths reported use of illicit drugs

EXHIBIT III-4				
SUBSTANCE USE AND/OR ABUSE				
VARIABLE	EXPERIMENTAL		CONTROL	
	NUMBER	PERCENT	NUMBER	PERCENT
ILLICIT DRUG USE BY YOUTH				
None	94	50.3%	92	52.3%
Minimal/Some	75	40.1%	54	30.7%
Major	14	7.5%	24	13.6%
Unknown	4	2.1%	6	3.4%
TOTAL	187	100.0%	176	100.0%
ALCOHOL USE BY YOUTH*				
None	65	34.8%	73	41.5%
Minimal/Some	108	57.8%	79	44.9%
Major	10	5.3%	19	10.8%
Unknown	4	2.1%	5	2.8%
TOTAL	187	100.0%	176	100.0%
PREVIOUS IN-PATIENT OR RESIDENTIAL COUNSELING FOR DRUG/ALCOHOL PROBLEMS				
Yes	24	12.8%	25	14.2%
No	133	71.1%	130	73.9%
Unknown	30	16.0%	21	11.9%
TOTAL	187	100.0%	176	100.0%
* Significant (p = 0.0252)				

compared with 44 percent of control youths. Approximately one in every seven experimental (13%) and control (14%) youths reported previous in-patient or residential counseling for drug/alcohol problems. Control group youths were found to be more likely than experimental youths to have major alcohol problems ($p=0.0252$).

1.4 Criminal Offense History

A profile of the criminal offense history of experimental and control group youths is presented in Exhibit III-5. As the exhibit demonstrates, more than three-fourths of experimental (77%) and control (74%) youths were filed against for delinquency charges prior to age 15. More than two-thirds of experimental (70%) and control (67%) youths had two or more prior adjudicated offenses on record prior to entry into the study. Most youths—88 percent of experimental and 89 percent of control—had at least one prior probation disposition on record. Approximately one-fourth of experimental (23%) and 15 percent of control youths had at least one prior commitment on record.

Youth court records were searched to identify the most serious recorded prior offense. The majority of experimental (75%) and control (75%) youths had been adjudicated for lesser felonies (Class C), misdemeanors, or status offenses; however, 21 percent of experimental youths and 22 percent of control youths had more serious Class A or B felony offenses on record. Of the most serious prior offenses on record for each youth, property offenses were most common, followed by public order, violent offenses, and drug-related offenses. This hierarchy was consistent for both experimental and control group youths. Observed differences between experimental and control youths on criminal offense history characteristics were found not to be statistically significant.

1.5 Committing Offense and Risk Assessment

Information describing the committing offense is presented for experimental and control group youths in Exhibit III-6. As the exhibit demonstrates, 27 percent of experimental youths and 29 percent of control youths entered the study on a violation of a court order or parole violation stemming from a prior offense. The majority—73 percent of experimental and 71 percent of control youths—entered the study as a result of a new charge, most of which were offenses officially adjudicated by the court. More than three-fourths of experimental (78%) and control (81%) youths entered the study as a result of a lesser felony (Class C), a misdemeanor, or a status offense, or as a result of a VCO or parole violation stemming from a lesser felony or

EXHIBIT III-5
CRIMINAL OFFENSE HISTORY*

CHARACTERISTIC	EXPERIMENTAL		CONTROL		CHARACTERISTIC	EXPERIMENTAL		CONTROL	
	N	%	N	%		N	%	N	%
AGE AT FIRST COURT REFERRAL					MOST SERIOUS PRIOR OFFENSE				
≤ 12 Years	60	32.1%	61	34.7%	Class A & B Felonies	39	20.9%	38	21.6%
13-14 Years	84	44.9%	69	39.2%	Class C Felonies	86	46.0%	86	48.9%
15-16 Years	37	19.8%	43	24.4%	Misdemeanor	44	23.5%	43	24.4%
17-18 Years	4	2.1%	2	1.1%	Status	11	5.9%	3	1.7%
Unknown	2	1.1%	1	0.6%	Unknown	7	1.6%	6	3.4%
TOTAL	187	100.0%	176	100.0%	TOTAL	187	100.0%	176	100.0%
NUMBER OF PRIOR ADJUDICATED OFFENSES					TYPE OF MOST SERIOUS PRIOR OFFENSE				
None	16	8.6%	20	11.4%	Property	115	61.5%	111	63.1%
One	39	20.9%	38	21.6%	Violent	19	10.2%	19	10.8%
Two or More	130	69.5%	118	67.0%	Drug	7	3.7%	9	5.1%
Unknown	2	1.1%	0	0.0%	Public Order	39	20.9%	30	17.0%
TOTAL	187	100.0%	176	100.0%	Unknown	7	3.7%	7	4.0%
					TOTAL	187	100.0%	176	100.0%
NUMBER OF PRIOR PROBATION DISPOSITIONS					NUMBER OF PREVIOUS COMMITMENTS				
None	20	10.7%	19	10.8%	None	140	74.9%	140	79.5%
One	58	31.0%	44	25.0%	One	34	18.2%	21	11.9%
Two or more	107	57.2%	113	64.2%	Two or more	9	4.8%	6	3.4%
Unknown	2	1.1%	0	0.0%	Unknown	4	2.1%	9	5.1%
TOTAL	187	100.0%	176	100.0%	TOTAL	187	100.0%	176	100.0%

* Observed differences were found not to be statistically significant.

EXHIBIT III-6 **COMMITTING OFFENSE AND RISK ASSESSMENT***

CHARACTERISTIC	EXPERIMENTAL		CONTROL		CHARACTERISTIC	EXPERIMENTAL		CONTROL	
	N	%	N	%		N	%	N	%
NEW OFFENSE					COMBINED TYPE/SEVERITY **				
No (VCO or PV)	50	26.7%	51	29.0%	Violent, Class A or B	5	2.7%	1	0.6%
Yes	137	73.3%	125	71.0%	Property, Class A or B	30	16.0%	27	15.3%
Adjudicated	(117)	(85.4)%	(109)	(87.2)%	Drugs, Class A or B	1	0.5%	1	0.6%
Not Adjudicated	(6)	(4.4)%	(10)	(8.0)%	Public Order, Class A or B	5	2.7%	3	1.7%
Violation of CHINS	(14)	(10.2)%	(6)	(4.8)%	Violent, Class C	7	3.7%	3	1.7%
TOTAL	187	100.0%	176	100.0%	Property, Class C	47	25.1%	48	27.3%
DEGREE OF OFFENSE**					Drugs, Class C	11	5.9%	2	1.1%
Class A & B Felonies	41	21.9%	32	18.2%	Public Order, Class C	9	4.8%	12	6.8%
Class C Felonies	74	39.6%	65	36.9%	Violent, misdemeanor	12	6.4%	10	5.7%
Misdemeanor	67	35.8%	75	42.6%	Property, misdemeanor	17	9.1%	15	8.5%
Status	5	2.7%	4	2.3%	Drugs/Public order, misdemeanor	38	20.3%	50	28.4%
TOTAL	187	100.0%	176	100.0%	Public order, status	5	2.7%	4	2.3%
TYPE OF COMMITTING OFFENSE**					TOTAL	187	100.0%	176	100.0%
Property	94	50.3%	90	51.1%	DETENTION RISK ASSESSMENT SCORES				
Violent	24	12.8%	14	8.0%	0-5	88	47.1%	85	48.3 %
Drug	14	7.5%	9	5.1%	6-10	66	35.3%	63	35.8%
Public Order/Other	55	28.9%	63	35.8%	11-15	27	14.4%	20	11.4%
TOTAL	187	100.0%	176	100.0%	16 or more	4	2.1%	6	3.4%
					Unknown	2	1.1%	2	1.1%
					TOTAL	187	100.0%	176	100.0%

* Observed differences were found not to be statistically significant.

** For non-new offenses (VCO or PV) the variables: degree of offense, type of committing offense, and combined type/severity reflect the original prior

misdemeanor; approximately one-fifth of both groups entered on the more serious charges classified as Class A or B felony offenses.

Property offenses were the most common type of committing offense for both experimental (50%) and control (51%) youths, followed by public order offenses, violent offenses, and drug-related offenses. The severity and type of committing offenses were crosstabulated to identify the most frequently occurring permutations; the analysis results in the following order of offenses for experimental group youths, descending from more to less common:

- Class C felony property offenses (25%)
- Misdemeanor public order/drugs (20%)
- Class A or B felony property offenses (16%)
- Misdemeanor property offenses (9%)
- Misdemeanor violent offenses (6%)
- Class C felony drug offenses (6%)
- Class C felony public order/other offenses (5%)
- Class C felony violent offenses (4%).

The pattern was slightly different for control group youths. The analysis results follow:

- Misdemeanor public order/drugs (28%)
- Class C felony property offenses (27%)
- Class A or B felony property offenses (15%)
- Misdemeanor property offenses (9%)
- Class C felony public order/other offenses (7%)
- Misdemeanor violent offenses (6%)
- Class A or B felony public order/other offenses (2%)
- Class C felony violent offenses (2%).

No significant differences between experimental and control youths were found with respect to committing offense characteristics.

Scores on the court-administered, detention risk assessment screening instrument were obtained for comparison purposes. As Exhibit III-6 demonstrates, most youths—83 percent of experimental and 84 percent of control—had scores of ten or less. Scores exceeding 14 would lead to a requirement of home or secure detention stays. No significant differences between experimental and control group youths were observed in the aggregated scores.

1.6 Summary of Comparability Assessment

Results of the comparability assessment demonstrate a remarkable resemblance between experimental and control groups across a wide array of background, parental, criminal and prior placement history, and committing offense characteristics. Relatively modest differences were observed in level of alcohol use by youth. The control youths were more likely to have major alcohol use than the experimental youths. These differences, however, would not be expected to have an independent effect on the key questions and analyses constituting the evaluation. The differences between experimental and control groups will be controlled for in the outcome analysis. No other differences were found to be significant.

2. RESIDENTIAL PHASE OUTCOMES

Information describing the detention and residential experiences of experimental group youths was compiled from the information supplied by court staff and from exit forms administered only to experimental group youths at the point of their release from the boot camp. The findings are presented within the following framework:

- Pre-transfer detention experiences
- Residential phase youth dispositions
- Duration of residential term of confinement
- Behavioral infractions in boot camp
- Education scores.

Comparable information on control group youths was available only for pre-transfer detention experiences. Due to limitations in the study design, information on other outcomes for the subset of control youth who were also confined to an institutional setting was not available for reporting. No information was available to describe the experiences of youth released on probation, such as type and frequency of contacts with probation officers.

2.1 Pre-Transfer Detention Experiences

Exhibit III-7 presents measures of the average number of days experimental and control group youths were detained before transfer to designated facilities. As the exhibit demonstrates, approximately one-half of all experimental and control youths were held in a secure setting or some form of detention prior to institutional transfer.² The expectation was that experimental

² The measures represent total detention time prior to transfer to designated institutions, and may include time spent in detention following arrest but prior to adjudication, time spent in detention following adjudication but prior to sentencing, and time spent in detention following sentencing but prior to institutional transfer.

youths would experience a longer detention period than the control youths, on average, because of the need to hold experimental youths for the formation of the next boot camp cohort at the end of each month. In actuality, control youth were held in detention an average of four days longer than experimental youth. This would appear to be a function of the screening process in which youth were first assigned to the project, then underwent a series of additional screening tests before the judge's sentence was imposed. The major impact of this time in detention is the cost incurred.

EXHIBIT III-7 PRE-TRANSFER DETENTION AND AVERAGE DURATION						
TYPE OF DETENTION	EXPERIMENTAL GROUP			CONTROL GROUP		
	Number	Percent	Duration (In Days)	Number	Percent	Duration (In Days)
Youth Detained	90	48.1	21.3	86	48.9	25.3
Youth Not Detained	97	51.9	---	90	51.1	---
Total Youth	187	100.0%	---	176	100.0%	---

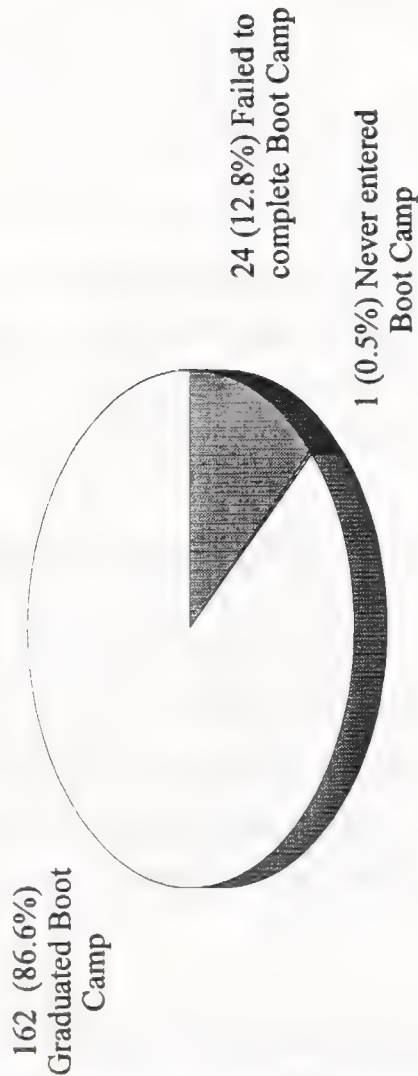
2.2 Residential Phase Youth Dispositions

Exhibit III-8 presents the distribution of youth dispositions from the experimental boot camp, juxtaposed with the residential status of control youths. As the exhibit demonstrates, 162 of the 187 total experimental youths selected in cohorts 1-18 successfully graduated from boot camp (87%), while 24 youths (13%) failed to complete boot camp as a result of an escape (n=7), or due to a medical termination (n=7) or a disciplinary dismissal (n=10). In addition, one youth (1%) was selected, but was disqualified prior to actual entry into boot camp when a psychological problem was detected later in the screening process.

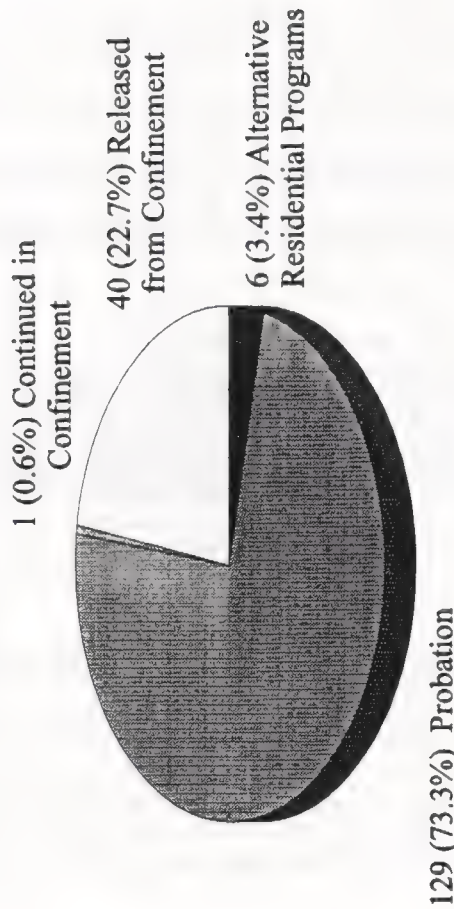
Parallel information on control group youths is also presented in Exhibit III-8. As the exhibit demonstrates, 176 control youths were included in the experiment. Nearly 23 percent were sentenced to DYS; all but one of 41 had completed their term of residential confinement at the established reporting cut-off point. The majority of the youths—135 (77%)—were sentenced directly to general probation (n=91, 52%), regular probation (n=9, 5%), intensive probation (n=25, 14%), SOS probation (n=4, 2%), or to other centers (e.g., residential drug treatment, Job Corps) as an alternative sentence to a suspended DYS commitment (n=6, 3%).

EXHIBIT III-8 DISTRIBUTION OF YOUTH DISPOSITIONS FROM RESIDENTIAL PHASE

Experimental Group



Control Group



Experimental Group Status	Number	Percent	Control Group Status	Number	Percent
Completed Boot Camp	162	86.6%	Released from Confinement (DYS)	40	22.7%
Medical Termination from Boot Camp	7	3.8%	Continued in Confinement	1	0.6%
Other Termination from Boot Camp	10	5.3%	Alternative Residential Programs	6	3.4%
Went AWOL from Boot Camp	7	3.8%	Probation	129	73.3%
Disqualified before entry to Boot Camp	1	0.5%			
TOTAL	187	100.0%	TOTAL	176	100.0%

2.3 Duration of Residential Term of Confinement

For experimental youths, the term of confinement at Environmental Youth Corps (EYC) was fixed by design at approximately 90 days. Control youths who were sentenced to DYS, on the other hand, served their original commitments in DYS facilities, where the minimum term of confinement is established by the court. Exhibit III-9 presents measures of the duration of confinement for both experimental youths and control youths who were committed to DYS.

EXHIBIT III-9 DURATION OF CONFINEMENT		
MEAN RESIDENTIAL STAY	NUMBER	DURATION (IN DAYS)
EXPERIMENTAL GROUP		
All Youths Entering Boot Camp ¹	184	87.0
All Youths Graduated ²	160	93.0
All Youths Entering But Failing to Complete	24	49.0
CONTROL GROUP		
All Youths Confined and Released	40	148.0
(Youths Continuing in Confinement)	1	---
(Youths in Alternative Residential Programs)	6	---
(Youths Released on Probation)	129	---
¹ Includes 24 youths who entered, but failed to complete; excludes 1 youth disqualified prior to entry and two youths whose files were sealed by the court. ² Excludes 2 youths who graduated but whose files were later sealed by the court.		

As the exhibit demonstrates, in fact, youths successfully graduating from boot camp and transitioning to aftercare (n=160) served an average term of 93 days, or slightly over three months. Youths who entered boot camp but failed to complete (n=24), due to medical reasons, dismissal, or having gone AWOL, lasted an average of 49 days. Among the control group who were confined, the average term of confinement was 148 days (4.9 months), or nearly 1.6 times the mean length of stay of graduating experimental youths.

2.4 Behavioral Infractions in Boot Camp

Exhibit III-10 presents the extent of behavioral problems and infractions committed at the EYC boot camp by the 160 youths who successfully completed the residential phase through cohort 18.³ As the exhibit demonstrates, 352 total behavior infractions were recorded over the period among this group. The most common behavior infractions involved fights with other youths, followed by horseplay, physical abuse, escape, and incidents of insubordination or defiance.

EXHIBIT III-10 INCIDENTS IN BOOT CAMP		
INCIDENTS	EXPERIMENTAL	
	N	%
NUMBER OF INCIDENTS		
None	49	30.6%
One	27	16.9%
Two	30	18.8%
Three or More	54	33.8%
TOTAL	160	100.0%
A total of 352 incidents were recorded and reported; average incidents per cohort was 19.6 incidents.		
Data are only for the 160 youths who successfully completed the residential phase. Data were not available for two youths who completed the residential phase because the files for these youths were sealed by the court.		

While there were 352 recorded behavioral infractions, they were perpetrated by about 69 percent of the 160 youths entering and completing the residential term; 31 percent of all youths in cohorts 1-18 committed no infractions of any kind that warranted classification and recording. As Exhibit III-10 indicates, 27 youths had one incident, 30 youths had two incidents, and 54 youths had three or more incidents reported and recorded.

³ Youths who were terminated from the residential phase (n=17), who absconded prior to completion and never returned to boot camp (n=7), who were disqualified prior to entry (n=1), or whose files were sealed by the court (n=2) are not included in this analysis.

2.5 Education Scores

Participation in remedial education is a focal activity of the residential phase. All experimental youths participated in an education curriculum several hours each weekday during the three-month period of confinement at EYC. Diagnostic tests of reading, spelling, language, and math levels, in the form of the Test of Adult Basic Education (TABE), were administered routinely at a youth's entry and discharge from the residential phase of the project. The analysis of change in scores is based on available pre-test and post-test scores obtained from EYC for experimental youths in cohorts 1-18.

Pre-test and post-test TABE scores were obtained for reading, spelling, language, and math skills in the form of grade-level equivalents (grades 5-12). A numerical value identical to the grade level was assigned for calculating average pre- and post-test scores for experimental youths.⁴ For example, a pre-test score of sixth-grade-equivalent was assigned a score of six for purposes of computing mean scores. Only youths for whom valid pre- *and* post-test scores were obtained were included in the analysis; youths for whom a pre-test was available, but not a post-test, were excluded, and vice versa. Outcomes of the analysis are presented in Exhibit III-11.

As the exhibit demonstrates, youths were most likely to improve in reading skills, followed by language, math, then spelling skills. Approximately 80 percent of all experimental youths for whom pre- and post-test scores were available (n=161) improved at least one grade level in reading skills over the period of confinement (37% improved two or more grades); 79 percent improved at least one grade at post-test in language (38% improved two or more grades), 73 percent improved at least one grade at post-test in math (23% improved two or more grades), while 68 percent improved at least one grade level at post-test in spelling (27% improved two or more grades).

3. AFTERCARE PHASE OUTCOMES

Although a total of 162 youths graduated from the EYC residential phase of treatment, the evolving nature of the aftercare phase—in terms of staffing turnover, multiple/changing aftercare locations, and differing treatment approach—created many difficulties in obtaining reliable and comprehensive data concerning the completion of many aftercare treatment objectives. The findings presented here are based on the subset of experimental youths (n=134) for whom completed Aftercare Tracking forms were obtained. Furthermore, the aftercare

⁴ Scores above grade 12 were reported by EYC with a score of "99.9."

EXHIBIT III-11
TEST OF ADULT BASIC EDUCATION—GRADE EQUIVALENT CHANGES
(EXPERIMENTAL GROUP ONLY)

INCREASES IN GRADE LEVEL	READING			SPELLING		
	CHANGE	NUMBER	PERCENT	VALID PERCENT	NUMBER	PERCENT
	Negative or no Change	18	11.2%	11.6%	33	20.5%
	One Grade	69	42.9%	44.5%	67	41.6%
	Two or More Grades	59	36.6%	38.1%	43	26.7%
	No room for improvement	9	5.6%	5.8%	10	6.2%
	Unknown	6	3.7%	-	8	5.0%
	TOTAL	161	100.0%	100.0%	161	100.0%
INCREASES IN GRADE LEVEL	LANGUAGE			MATH		
	CHANGE	NUMBER	PERCENT	VALID PERCENT	NUMBER	PERCENT
	Negative or no Change	17	10.6%	11.1%	21	13.0%
	One Grade	66	41.0%	43.1%	81	50.3%
	Two or More Grades	61	37.9%	40.0%	37	23.0%
	No room for improvement	9	5.6%	5.9%	15	9.3%
	Unknown	8	5.0%	-	7	4.3%
	TOTAL	161	100.0%	100.0%	161	100.0%

population has been divided into two subgroups: participants in the early aftercare program (n=59), which was less rigorous, and participants in the revised, more structured aftercare (n=75).

The findings are presented within the following framework:

- Transitional living arrangements
- Education overview
- Employment
- Youth and family counseling
- Community service and restitution

The data for these factors have been analyzed and will be discussed based on the experimental subgroups singularly, as well as in an aggregate total aftercare population. Comparable data for control youth were not available for analysis.

3.1 Transitional Living Arrangements

Exhibit III-12 presents the reported youth living arrangements while in the aftercare phase. More than eight of every 10 youths who went to aftercare lived with their parents at their home. This category includes any combination of single parent, natural parent/step-parent, and natural parents. Only approximately four percent of the youth reported living with their grandparents or some other family members. However, for a sizeable proportion of youth (approximately 16%), living arrangements were either unknown, or the youth was AWOL from the aftercare program.

EXHIBIT III-12					
AFTERCARE LIVING ARRANGEMENTS					
	OLD AFTERCARE		NEW AFTERCARE		TOTAL
Living with Parents	48	81.4%	60	80.0%	108 80.6%
Living with Grandparents or Other Family	2	3.4%	3	4.0%	5 3.7%
AWOL/Unknown	9	15.3%	12	16.0%	21 15.7%
Totals	59	100.0%	75	100.0%	134 100.0%

3.2 Education Overview

One of the major goals for the aftercare phase throughout the boot camp program has been to re-engage the youth in an appropriate educational situation when it is feasible. Exhibit III-13 presents a summary of the educational outcomes from the Mobile aftercare program. It is important to note that data were available only on whether youths returned to school at all; critical information beyond that (e.g., academic progress, subsequent behavior problems) was not available. This caution also applies to data presented for employment during aftercare, presented in Section 3.3.

Overall, close to seven out of ten youths (69%) returned to some form of schooling program, with almost three-quarters (73%) of those returning to regular mainstream schools or GED programs. The modal grade level is ninth, with nearly half (49%) of the students who return to school. Additionally, more than a quarter (27%) of the youths who re-entered school did so to special needs programs such as learning disabled, mentally retarded, or special education.

Interestingly, the revised aftercare program, which started in December 1993, had less overall success in returning the youths to their educational paths. Those youth in the later cohorts re-entered school at a lower rate (64%) than the earlier aftercare program (75%). The newer aftercare had a higher rate of youth not returning to school (25%) than the original aftercare program (14%). Moreover, of those 48 new aftercare youths who did re-engage, only 31 (65%) continued in regular mainstream schools, leaving 17 (35%) in special needs schooling. This compares to the original aftercare youth, 82% of whom entered mainstream schools, leaving 18% to special needs schooling. The causes for these differences are unclear and may simply be a function of the educational caliber of youth. In the overall education analysis, there are no statistically significant differences between the original and new aftercare programs.

3.3 Aftercare Employment

Exhibit III-14 shows the employment situation for the youths during the aftercare phase of treatment. The data shows that overall employment is minimal (17% of all aftercare youths) and almost exclusively on a part-time basis (20 out of 23 working youths), reflecting the young age of the Mobile population. The original aftercare program system again provided a higher percentage (23.7%) of employed youths than the subsequent aftercare program (12.0%). This difference is borderline statistically significant ($p=0.05021$), but may be due to differing recording procedures by the case workers rather than a programmatic difference.

EXHIBIT III-13
AFTERCARE EDUCATION OVERVIEW

	OLD AFTERCARE			NEW AFTERCARE			TOTAL AFTERCARE		
	TOTAL #	REGULAR SCHOOL	MR/LD/ SPEC ED	TOTAL #	REGULAR SCHOOL	MR/LD/ SPEC ED	TOTAL #	REGULAR SCHOOL	MR/LD/ SPEC ED
Youth Returned to School	44 (74.5%)	36	8	48 (64.0%)	67	25	92 (68.7%)	67	25
Grade Level 7	1	1	0	4	2	3	5	2	3
Grade Level 8	3	2	1	10	11	2	13	11	2
Grade Level 9	30	24	6	15	34	11	45	34	11
Grade Level 10	3	3	0	4	6	1	7	6	1
Grade Level 11	3	2	1	2	4	1	5	4	1
GED	3	3	0	3	6	0	6	6	0
Unknown/Missing	1	1	0	10	4	7	11	4	7
Youth not Returning to School	8 (13.6%)			19 (25.3%)			27 (20.1%)		
Other/Unknown	7 (11.8%)			8 (10.7%)			15 (11.2%)		
Total	59 (100.0%)			75 (100.0%)			134 (100.0%)		

EXHIBIT III-14 AFTERCARE EMPLOYMENT					
	OLD AFTERCARE		NEW AFTERCARE		TOTAL
Youth Employed Part-time	13	22.0%	7	9.3%	20 14.9%
Youth Employed Full-time	1	1.7%	2	2.7%	3 2.2%
Youth Not Working	34	57.6%	55	73.3%	89 66.5%
Missing/Unknown	11	18.6%	11	14.7%	22 16.4%
Totals	59	100.0%	75	100.0%	134 100.0%

3.4 Aftercare Youth Counseling and Family Participation

Two factors dramatically improved after the transition from the original aftercare program to the revamped system: (1) youth participation in some combination of individual and group counseling, and (2) the inclusion of the family in the same counseling sessions. Exhibit III-15 shows the data matrix for the youth and family counseling. Most new aftercare youths (84%) have recorded counseling, as opposed to only about half (49.2%) of those youths who were active in the original aftercare program. This is overwhelmingly statistically significant ($p=0.00000$), but can be based only on a counseling recorded/not recorded basis, not as a true measure of those who received counseling versus those who did not. Furthermore, the new aftercare program had more than twice the youths whose families were involved in the counseling treatment (22.7%, compared with 10.2% in the original aftercare program), although the difference is not statistically significant.

EXHIBIT III-15 AFTERCARE YOUTH COUNSELING / TREATMENT					
	OLD AFTERCARE		NEW AFTERCARE		TOTALS
Youth Participation in Individual/ Group Counseling	29	49.2%	63	84.0%	92 68.7%
No Recorded Counseling	30	50.8%	12	16.0%	42 31.3%
Totals	59	100.0%	75	100.0%	134 100.0%
Family Participation in Counseling	6	10.2%	17	22.7%	23 17.2%
No Recorded Family Participation	53	89.8%	58	77.3%	111 82.8%
Totals	59	100.0%	75	100.0%	134 100.0%

3.5 Community Service and Restitution

Exhibit III-16 presents the data regarding the community service performed as well as the rate of youths who are paying any restitution. About four in five youths (82.8%) performed some form of community service, either court-ordered or as part of the aftercare program. Of those who performed community service, the average youth served more than 57 hours. Almost two out of five (38.8%) have paid some amount of restitution, averaging \$159.17. This average amount ranged from \$137.13 for the original aftercare program to \$173.84 for the later aftercare youths.

EXHIBIT III-16						
AFTERCARE COMMUNITY SERVICE AND RESTITUTION						
	OLD AFTERCARE		NEW AFTERCARE		TOTALS	
Youth Performing Community Service	45	76.3%	66	88.0%	111	82.8%
Youths w/no Community Service	8	13.6%	4	5.3%	12	9.0%
Unknown/Missing	6	10.2%	5	6.7%	11	8.2%
Totals	59	100.0%	75	100.0%	134	100.0%
Mean Amount of Community Service	(n=45)	59.2 hrs	(n=61)	55.6 hrs	(n=106)	57.1 hrs
Youths Paying any Restitution	21	35.6%	31	41.3%	52	38.8%
Youths w/no Restitution	33	55.9%	41	54.7%	74	55.2%
Unknown/Missing	5	8.5%	3	4.0%	8	6.0%
Totals	59	100.0%	75	100.0%	134	100.0%
Mean Payment in Restitution	(n=20)	\$137.13	(n=30)	\$173.84	(n=50)	\$159.17

IV. ANALYSIS OF RECIDIVISM FACTORS

IV. ANALYSIS OF RECIDIVISM FACTORS

Recidivism differences between the experimental and control groups are the focus of this chapter. The chapter is structured in accordance with the following framework:

- **Data for recidivism analyses**, which discusses how the critical data were obtained as well as the parameters for defining recidivism for purposes of the analyses
- **Residual samples**, which discusses attrition from the experimental and control groups and the resulting final sample sizes on which analyses were conducted
- **Methods for recidivism analyses**, which presents the important issues involved in analyzing recidivism data and statistical procedures selected for analysis which accommodate the data conditions
- **Results of recidivism analyses**, which presents the comparative recidivism outcomes between boot camp youth and their control group counterparts
- **Analysis of subsequent offenses**, which explores patterns in the severity and type of offenses committed by experimental and control youth following release from confinement, and their relationship to offenses committed prior to study selection
- **Positive outcomes and recidivism**, which explores whether and, if so, how positive outcomes accomplished by youth in boot camp and aftercare are related to the likelihood of re-offending
- **Conclusions**, which presents the major preliminary conclusions that can be drawn at this point on the basis of available data

For documentation purposes, endnotes appearing in the text refer the reader to statistical output from the various analyses, presented at the conclusion of this chapter. Additional analyses on recidivism are referred to briefly in the text and documented in the Appendix.

1. DATA FOR RECIDIVISM ANALYSES

Data required for the recidivism analyses were extracted from a variety of cooperating sources. Information characterizing the rates of re-offending (the first adjudicated offense), as well as the severity and types of offenses for both experimental and control group youths, was extracted from the Juvenile Court Information System by a team of Juvenile Court staff. The date of censoring, or the point at which the system was searched for new adjudicated offenses,

was November 30, 1994; this also represents the end date for calculating time free to recidivate following release for each youth.

Facility entrance and release information for experimental youths, by which time at risk in the community could be calculated, was provided to the court team by EYC. Similar movement information for control group youths was extracted from Alabama Department of Youth Services monthly regional reports by Juvenile Court staff.

Recidivism was defined as a court-adjudicated new offense or an adjudicated technical violation of probation, rather than merely a re-arrest. Technical violations were included in this definition of recidivism because of the large number of youth who violated probation as their first offense after release from EYC or DYS, or while on probation in the community. Juvenile Court staff conducted a search of the system for adjudications on record, through both the juvenile and adult systems, for both experimental and control group youths following release from their respective terms of confinement. Information describing the first subsequent adjudication was considered to be most reliable; thus, data on offenses subsequent to the first adjudicated offense following release from confinement, if any, were not used in the analysis in this report.

2. RESIDUAL SAMPLES

Exhibit IV-1 presents the residual experimental and control group samples on which the recidivism analyses were based. As the exhibit demonstrates, 374 youths were selected and randomly assigned to both the experimental (187) and the control (187) groups, through cohort 18.

Of the 187 assigned experimental group youths, twenty-four (13%) failed to complete the residential phase, while one (1%) was found to have been selected and randomly assigned, but then disqualified from study participation. Based on available information, of the twenty-four experimental youths who were dismissed from the study following entry into bootcamp, seven youths were terminated for medical or psychiatric reasons while ten others were terminated for other reasons, for example, for displaying a "non-participatory manner." Seven absconded, or AWOLed, from EYC and were later apprehended and committed to DYS.

All 25 experimental youths were excluded from the recidivism analyses for never entering the experimental boot camp, or for having entered the experimental treatment, then for a variety of reasons, "failing" and later entering control-type treatments (e.g., DYS and drug treatment facilities). In addition, two others whose files were sealed by the court were also

excluded. These youths were considered special cases whose lack of sufficient exposure to the experimental treatment (and, in fact, exposure to a mixture of treatments) confounded measurement of a boot camp "treatment effect" and, thus, warranted exclusion from the analyses.

EXHIBIT IV-1 RESIDUAL SAMPLE SIZES						
SAMPLE	EXPERIMENTAL		CONTROL		TOTAL	
	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT
SELECTED AND ASSIGNED	187	100.0%	187	100.0%	374	100.0%
Disqualified	1	0.5%	11	5.9%	12	3.2%
Failed to Complete Residential	24	12.8%	0	0.0%	24	6.4%
Still in Residential	0	0.0%	1	0.5%	1	0.3%
COMPLETED RESIDENTIAL	162/186	87.1%	40/41	97.6%	202/227	89.0%
Probation, Community Corrections, Other	0	0.0%	134	71.7%	134	35.8%
Identity Problems	0	0.0%	1	0.5%	1	0.3%
Files Sealed by Court	2	1.1%	0	0.0%	2	0.5%
TOTAL RESIDUAL SAMPLES	160*	85.6%	174**	93.0%	334	89.3%
Exclusion Rate	27	14.4%	13	7.0%	40	10.7%
<p>* Two youths had their files sealed by the court and they will therefore be excluded from subsequent analyses</p> <p>** Identity of one youth not clear; subsequent to intake, information was incomplete and inaccurate because of confusion with another youth of the same name. This youth will be excluded from subsequent analyses on recidivism</p>						

Of the 187 assigned control group youths, 41 were committed to DYS. Of these 41, one remained in confinement at the reporting cut-off point and was therefore not free in the community for any length of time prior to the reporting cut-off point (November 30, 1994). In addition, 11 youths (5.9%) were found to have been selected and randomly assigned, but at some point disqualified from study consideration for failing to meet established program selection criteria; as a consequence, these youths have been excluded from any analyses. Little or no information of any kind was available on these 11 youths.

The majority (135, 72.2%) of the control youths were found to have been released to probation, drug treatment centers, Job Corps, or other open programs, and thus served no term of confinement. Of the 135, only one was excluded from the analyses for lack of clarity on his identity. The other 134 youths were neither excluded nor treated as special cases. While not committed to a residential term, these youths were determined to have met the criteria for selection into the study from the beginning and received the "treatment" to which they were legitimately assigned.

Thus, a total of 27 experimental and 13 control youths were excluded from recidivism analyses. The residual samples on which the recidivism analyses were based include an experimental group constituted of 160 youths (85.6% of those originally selected and assigned), and a control group constituted of 174 youths (93.0% of those originally selected and assigned). The exclusions of control and experimental youths were important to maintaining the test of treatment effects on recidivism within the community; however, these exclusions threaten the integrity of the experiment because they may have produced non-equivalent control and experimental groups for analysis. The exclusions made it impossible to analyze the results of the experiment as it was randomized. In order to correct for, or assess, potential bias introduced by these exclusions, analyses comparing the experimental and control groups were repeated including 19 of the 25 youth who did not complete EYC and who were excluded from the main portion of the analysis. Of the six who were not included in the re-analysis, four had no time free in the community to recidivate because they left boot camp for a residential assignment and two had significant missing data on important control variables. None of the excluded control youth could be included in the re-analysis because there was no reliable information available on 12 of them, and one had no time free to recidivate in the community. Results of the repeat analysis after the inclusion of the 19 experimental youth are reported.

3. METHODS FOR RECIDIVISM ANALYSES

Recidivism among youth involved in the Mobile Environmental Youth Corps (EYC) program and their control group poses the following four problems for data analysis:

- The data are censored. Information collection on recidivism was terminated on a researcher-imposed date, November 30, 1994, and it cannot be assumed that youth who did not recidivate by then will not recidivate in the future. Doing so would bias conclusions about factors that influence the risk and rate of recidivism.
- These youth have been free to recidivate for varying lengths of time, and time free in the community is likely to be an important explanation of differences in rates of recidivism.

- The risk of recidivating for EYC youth compared to the control youth may vary across time. It is important to know at what point in time the EYC youth and control group youth are the most alike in recidivism rates and at what point in time they are the most different.
- Differences between the two groups on important background factors, social history data, criminal history data, or demographics might either explain or mask differences in recidivism rates.

In order to meet these challenges, the data analyses consisted of two basic steps. The first step included baseline comparisons between the experimental and control groups on recidivism and a comparison between the two treatment groups of recidivism dependent on time to subsequent offense.

Then, two more complex analytical techniques, logistic regression and Cox proportional hazards regression, were used to make recidivism comparisons between the experimental and control groups removing the effects of any group differences. Logistic regression was used to make comparisons in overall recidivism between the two groups net of any confounding factors. Cox proportional hazards regression, a statistical technique that is designed to mathematically eliminate bias introduced through censoring of data, was used to take into account differing amounts of time at risk for the event and compare the rate of recidivism between the two treatment groups net of confounding factors.

The assessment of differences between the two treatment groups in recidivism was complicated by one unique characteristic of the Mobile demonstration project—the high number of youth who violated probation as their first adjudicated offense after their release from EYC, DYS, or while in the community on probation. Therefore, as mentioned earlier, the primary definition of recidivism for these analyses was a post-release new adjudicated offense or adjudicated technical violation. Because the youth who committed technical violations of their probations might be somewhat different from those youth who did not recidivate or who committed new offenses as their first adjudicated post-release offense, additional analyses were done to identify recidivism differences between the two treatment groups when recidivism was defined only as a new adjudicated offense or a technical violation. This approach provided information about the influence of the EYC program on the probability of any post-release adjudicated offense or a specific type of post-release adjudicated incident. It is possible that treatment group could make a difference in one kind of recidivism but not another. The results of these additional analyses are briefly reported in the text and relevant statistical output is contained in the Appendix.

4. RESULTS OF RECIDIVISM ANALYSIS

The recidivism analyses addressed the following questions:

- Is there a significant difference in recidivism between the EYC youth and control youth?
- Does any difference in recidivism between EYC youth and control youth remain even when taking time at risk into account?
- Is any difference in recidivism between EYC youth and control youth constant over time?
- Can any differences in recidivism between EYC youth and control youth be explained or moderated by differences between the groups in background, criminal history, social history, or demographics?

The answers to these questions are presented in the following sections.

4.1 Baseline Comparison of Experimental and Control Group Recidivism

Comparative rates of re-offending among the experimental and control groups are presented in Exhibit IV-2. As the exhibit demonstrates, from the point of release from confinement to the reporting cut-off point, a new adjudicated offense was recorded for 28.1 percent of experimental youth (45) and 31 percent of control youth (54). An additional 45 experimental youth and 51 control youth were adjudicated for technical violations, for an overall recidivism rate of 56.2 percent for experimental youth and 60.3 percent for control youth. None of these differences is statistically significant; what is noteworthy is the high level of technical violations that occurred.

EXHIBIT IV-2
RATES OF RE-OFFENDING

RATES	EXPERIMENTAL		CONTROL	
	NUMBER	PERCENT	NUMBER	PERCENT
New Offense	45	28.1%	54	31.0%
Technical Violation (VOP, CHINS)*	45	28.1%	51	29.3%
Total New Adjudicated Offenders	90	56.2%	105	60.3%
Youths Having No New Adjudications	70	43.8%	69	39.7%
TOTAL	160	100.0%	174	100.0%

* Two reoffenders with status offenses are included with the technical violations (one experimental, one control).

New Offenses in Days Following Release from Confinement

Exhibit IV-3 presents experimental and control youth who committed new offenses by time of the new offense following release from confinement (in 30-day intervals). As the exhibit demonstrates, the rate at which the youth in both treatment groups recidivated was very similar through the first 120 days after release. At 120 days after release, 24.4% of the experimental youth had recidivated and 21.3% of the control youth had recidivated. Beginning at about 120 days post-release, however, the experimental youth were recidivating more quickly than the control youth. For example, it took slightly more than 270 days or 9 months for 50% of the experimental youth to recidivate and 390 days post-release for 50% of the control youth to recidivate. That is, it took 44% longer for the control group to reach 50% recidivating than the experimental group. Over the total analysis period, 43.7% of the experimental youth did not recidivate and 39.7% of the control youth did not recidivate.

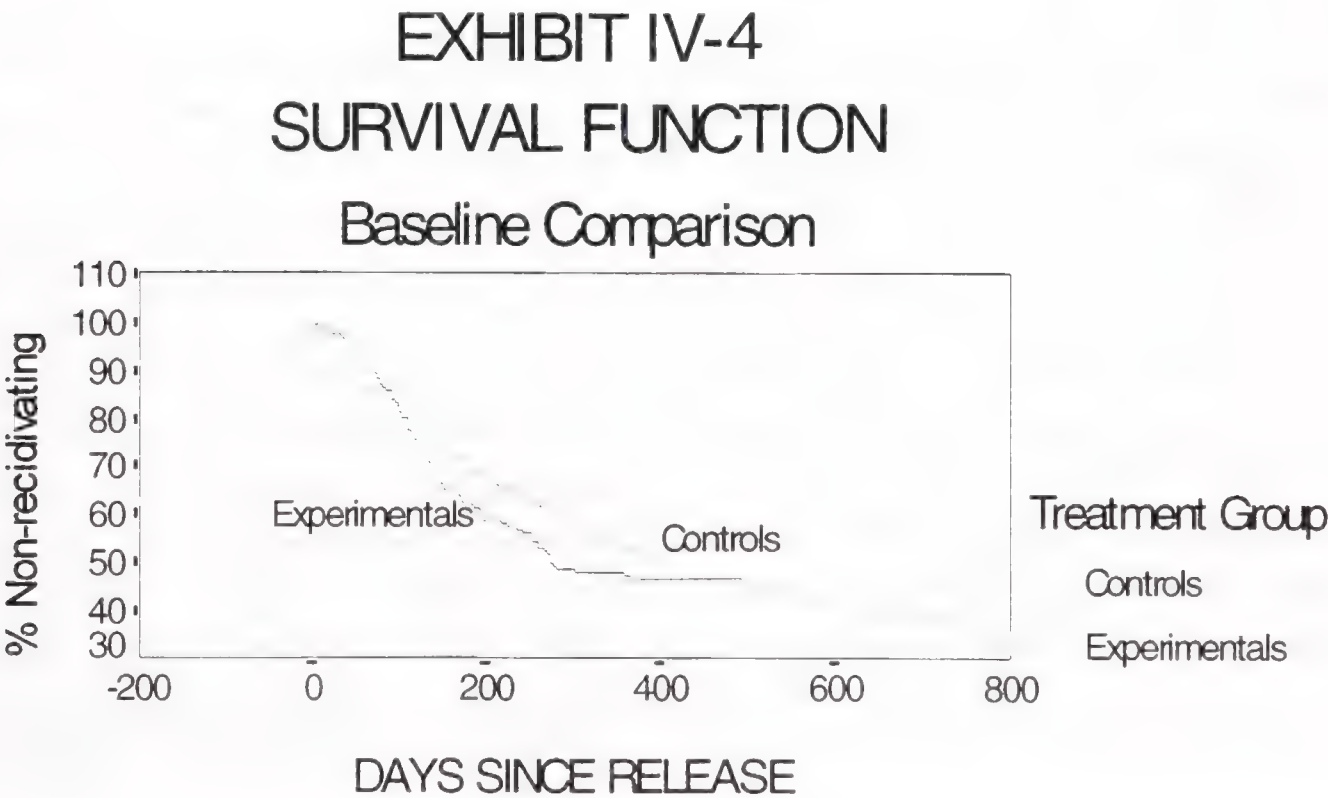
As an additional measure of survival (i.e., not recidivating) following release, new offenses committed by experimental and control youth were analyzed to determine average elapsed times from release to a new adjudicated offense or technical violation. Re-offending experimental youth demonstrated a shorter survival period (i.e., time without recidivating) than re-offending control youth: the 90 re-offending experimental youth averaged 156 days, or approximately 5.1 months, from the point of release from confinement to the date of a new adjudicated offense. Re-offending control group youth (n=105) averaged 232 days, or approximately 7.7 months, from release to new adjudication.

EXHIBIT IV-3
YOUTH RECIDIVATING AT POINTS FOLLOWING RELEASE

DAYS FOLLOWING RELEASE FROM CONFINEMENT	EXPERIMENTAL GROUP (n=160)			CONTROL GROUP (n=174)		
	FREQUENCY	PERCENT	CUMULATIVE PERCENT	FREQUENCY	PERCENT	CUMULATIVE PERCENT
1-30	4	2.5%	2.5%	5	2.9%	2.9%
31-60	11	6.9	9.4	17	9.8	12.6
61-90 (3 mos.)	8	5.0	14.4	6	3.4	16.1
91-120	16	10.0	24.4	9	5.2	21.3
121-150	15	9.4	33.8	8	4.6	25.9
151-180 (6 mos.)	8	5.0	38.8	5	2.9	28.7
181-210	6	3.8	42.5	8	4.6	33.3
211-240	3	1.9	44.4	3	1.7	35.1
241-270 (9 mos.)	7	4.4	48.8	7	4.0	39.1
271-300	5	3.1	51.9	4	2.3	41.4
301-330	1	0.6	52.5	5	2.9	44.3
331-360 (1 yr.)	2	1.3	53.8	5	2.9	47.1
361-390	1	0.6	54.4	5	2.9	50.0
391-420	0	0.0	54.4	2	1.1	51.1
421-450 (15 mos.)	0	0.0	54.4	3	1.7	52.9
451-480	0	0.0	54.4	2	1.1	54.0
481-510	1	0.6	55.0	0	0.0	54.0
511-540 (18 mos.)	1	0.6	55.6	1	0.6	54.6
541-570	1	0.6	56.3	2	1.1	55.7
571-600	0	0.0	56.3	2	1.1	56.9
601-630 (21 mos.)	0	0.0	56.3	2	1.1	58.0
631-660	0	0.0	56.3	0	0.0	58.0
661-690	0	0.0	56.3	1	0.6	58.6
691-720 (24 mos.)	0	0.0	56.3	0	0.0	58.6
721-750	0	0.0	56.3	1	0.6	59.2
751-780	0	0.0	56.3	1	0.6	59.8
781-810 (28 mos.)	0	0.0	56.3	1	0.6	60.3
TOTAL RECIDIVATING	90		56.3	105		60.3
TOTAL NOT RECIDIVATING	70		43.7	69		39.7

Baseline Regression Comparisons of Experimental and Control Recidivism

Analyzing the baseline data again using logistic and Cox regression procedures provided additional support for the findings of the initial comparisons of recidivism in the two treatment groups. There was no significant difference in overall probability of recidivism for the EYC youth compared to the control youth. The Cox regression analysis, however, indicated that there was a significant difference in recidivism for the two treatment groups at some points in time.¹ There was not a similar difference in risk over time when a new adjudicated offense or adjudicated violation of probation were analyzed separately (See Appendix). Exhibit IV-4 presents a graph of the probability of not recidivating by time free to recidivate for the experimental and control groups. This survival graph shows that while the overall proportion of recidivators for the two treatment groups is the same at close to 600 days post-release, the rate at which the two groups recidivated varied over time. Between approximately 100 and 200 days post-release, the experimental group is recidivating more rapidly than is the control group.



4.2 Multivariate Comparisons of Experimental and Control Group Recidivism

The baseline analyses could not rule out entirely the presence of a relationship between treatment group and recidivism, i.e., a difference between the two groups in background factors, criminal or social history, or demographics could have been masking or suppressing indications of actual overall differences between the treatment groups. Moreover, group differences on the

above listed factors could have been responsible for the appearance of a timing difference in recidivism between the two groups. These group differences, if present, could have occurred by chance despite the random assignment procedure or they could have been the result of sample attrition over the course of the study. Whatever the cause of any treatment group differences, multivariate analyses were conducted in order to ensure that any group differences in background factors, criminal or social history, or demographics were not masking or suppressing indications of actual treatment group differences in recidivism and to ensure that these same group differences were not responsible for the appearance of timing differences in recidivism between the two groups. Multivariate analyses mathematically remove the effects of potentially confounding variables (in this case, background factors, criminal or social history, and demographics) to allow the assessment of the independent or net effect of the variable of interest—in this case, treatment group—on recidivism and the timing of recidivism.

Comparisons of Experimental and Control Group Recidivism Controlling For Group Differences

So that comparisons of the experimental and control groups controlling for group differences could be made, the treatment groups were compared on background factors, criminal history, social history, and demographics in order to identify group differences that might be confounding the analyses.² Any differences in these factors between the groups could have been masking or suppressing indicators of actual differences between the treatment groups with regard to recidivism or could have been responsible for the differences found in rate of recidivism over time. The specific factors on which the two treatment groups were compared are listed in Exhibit IV-5. Statistically significant differences found between the treatment groups are indicated by an asterisk (*) in Exhibit IV-5. The differences identified in these comparisons between the control and experimental youth that are dissimilar to earlier analyses are due to the slight change in sample and a somewhat more liberal policy for accepting statistically significant differences. For example, in order to ensure that any potentially relevant group differences were identified, a $p=.06$ was accepted as an indication of a group difference large enough to include in these multivariate analyses.

EXHIBIT IV-5 **BACKGROUND, CRIMINAL HISTORY, SOCIAL HISTORY, AND DEMOGRAPHIC CHARACTERISTICS**

BACKGROUND:	DEMOGRAPHICS:	SOCIAL HISTORY:	CRIMINAL HISTORY:
Residence at time of offense	Age at transfer	Ever placed out of home*	Age at first filing
Attending school*	Race/Ethnicity	Record of any parental abuse or neglect*	Age at first adjudication
Grade completed		Parent with criminal history	Prior adjudicated delinquencies*
Prior school suspensions		Discipline problem in school	Prior probations
Prior school expulsions		Discipline problems at home	Youth in secure facility prior to boot camp
		Moderate alcohol problems*	Prior runaway incidents
		Substance abuse problems	Type of previous offense
		Parental substance abuse	Severity of previous offense
		Risk assessment score	Type and severity index for previous offense
		History of fighting	Type of boot camp offense
		History of gang involvement	Severity of boot camp offense
		Prior counseling	Type and severity index for boot camp offense
		Living with both natural parents*	Index of type and severity of most serious offense
			New offense for boot camp?
			Prior commitments

* Significant difference between groups.

The significant group differences are summarized below:

- More controls were previously placed out of the home than experimentals ($\chi^2 = 3.73$, $df=1$, $p=.05$)
- More controls than experimentals were not attending school at the time of their committing offense ($\chi^2 = 4.14$, $df=1$, $p=.04$)

- More experimentals than controls had moderate alcohol problems compared to those with no problems or severe problems ($\chi^2 = 6.72$, $df=2$, $p=.03$)
- Controls had fewer adjudicated delinquencies than did experimentals ($t=1.91$, $p=.06$)
- Controls were more likely to have had a report of abuse/neglect than were experimentals ($\chi^2 = 5.14$, $df=1$, $p=.02$)
- Controls were more likely to be living with both natural parents than were experimentals ($\chi^2 = 5.48$, $df=1$, $p=.02$).

Logistic and Cox regression analyses indicated that controlling for these group differences did not affect the relationship between treatment group and recidivism in any way. There was no difference in overall probability of recidivism between the treatment groups and the significant interaction between time since release and treatment group (i.e., significant differences in recidivism between the treatment groups at certain points in time) remained.³ Including 19 of the excluded experimental youth did not substantively affect the model.⁴

Exhibit IV-6 presents an assessment of the differences in rate of recidivism for the two treatment groups over time controlling for the identified group differences. It shows that early after release (up to 100 days) and ultimately (500 days) the experimentals and controls are recidivating at approximately the same pace. At some intermediate times, however, the experimentals have recidivated faster than the controls. For example, the second and third rows of data on Exhibit IV-6, demonstrate that it took 1.47 times more days for the controls to reach 30% recidivating than it took the experimentals. Similarly, it took 1.43 times more days for the controls to reach 45% recidivating than it took the experimental youth.⁵

EXHIBIT IV-6 RATE OF RECIDIVISM BY TREATMENT GROUP CONTROLLING FOR GROUP DIFFERENCES (N=275)			
% Recidivating	Days		Ratio
	EYC	Controls	
55 %	100	100	1.00
30 %	150	220	1.47
45 %	262	375	1.43
53 %	512	512	1.00

Summary of Findings

In response to the original questions, the analyses indicate:

- No overall differences in any measure of recidivism between the two treatment groups
- Group differences on demographic characteristics, background factors, social history, and criminal history were not suppressing or masking any recidivism differences in the two groups
- EYC youth recidivated more quickly than did control youth in the early days after release.

Further research would be required to determine why EYC youth were more vulnerable to recidivism during this three to six month period.

4.3 Additional Analyses of Recidivism

Two additional sets of analyses were done to fully examine the role of treatment group and background factors in recidivism. These included separate analyses of recidivism in the experimental and control groups and analysis of the relationship between treatment experiences and recidivism.

Separate Analyses of Recidivism for the Experimental and Control Groups

Separate analyses of the two treatment groups were done to determine if background, social and criminal history, or demographics influenced recidivism differently in the two groups.⁶ A multivariate logistic regression examining the risk of recidivism among the experimental youth indicates that one factor enhanced the risk of recidivism for boot camp youth: The odds of recidivating for youth who had major discipline problems at home were 2.85 times greater than the odds of recidivating for youth who had no or only minor discipline problems at home.⁷

The separate analyses performed on the control group found no significant differences in the risk of recidivism related to background factors, social or criminal history, or demographic factors.

Analysis of the Relationship Between Treatment Experiences And Recidivism

Separate analyses of the relationship between treatment experience and recidivism were done in order to more fully understand which youth within each treatment group were more likely to recidivate. For experimental youth, three aspects of treatment were examined: completion of the EYC program, length of time spent at boot camp, and aftercare experiences. For the control youth, only type of treatment (i.e., residential or other) could be examined.

For the EYC youth, there was no significant association between finishing the program and recidivism, nor was there any difference in time spent in the residential phase for those EYC youth who recidivated and those who did not. Moreover, when the following aftercare experiences were analyzed, there was no difference in the EYC youth who recidivated and those who did not: living at home with parents during aftercare, working part-time or full-time during aftercare, attending school or working on a GED during aftercare, performing community service during aftercare, participating in individual or group counseling during aftercare, family participation in counseling during aftercare, and paying any restitution during aftercare.⁸

The only reliable indicator of treatment differences available for the control youth was type of residential treatment. Of the 174 control youth used in these analyses, 22 percent were sent to residential treatment operated by the Department of Youth Services (DYS) and 78 percent were placed on some type of probation or sent to some other form of treatment, such as drug rehabilitation, as a result of their committing offense. There was no indication of association between DYS residential treatment and probability of recidivism.

4.4 Summary of Findings

Based on these analyses, the following are the major findings on recidivism in the Mobile demonstration project:

- There were no overall differences in any measure of recidivism between the two treatment groups
- EYC youth recidivated more quickly than did control youth in the early days after release.
- Examinations of differences in recidivism related to treatment or aftercare experiences for the EYC youth and type of sentence for the control youth, revealed no association between these experiences and recidivism.

Interpretation of these analyses is limited by the absence of two kinds of information about the youth's experiences: detailed information on treatment during residential phase and information on the context in which the recidivism occurred. It could be that differences in the type of counseling or educational support received during the residential period might explain some of the variation in recidivism. The lack of information on the post-release environment, including level of supervision in which the youth were living at the time of the recidivism, also limited the analysis. Current influences may have been more important to the explanation of recidivism than were background or treatment factors.

5. SUBSEQUENT OFFENSES

It would be ideal, at this point, to analyze the type and levels of offenses committed subsequent to treatment to determine if, while not preventing subsequent new offenses, treatment was related to later offenses of lesser severity, lesser number, or differing type. This form of analysis requires extensive information on recidivism including multiple subsequent offenses. Complete information of this type was not available for analysis for this interim report. Therefore, the following issues were addressed concerning the relationship between previous offenses, committing offenses and first new offense after release from treatment:

- What is the severity and type of offense committed by the experimental and control youth?
- What is the relationship between type of previous or committing offense and type of new recidivating offense?
- What is the relationship between level of previous or committing offense and level of new recidivating offense?
- What is the relationship between overall severity indices for previous and committing offenses and the same indicators for new recidivating offense?

It is important to note a critical limitation of the analysis. Unfortunately, the important issue of a "monitoring" effect (i.e., whether one group of youth was at greater risk of being detected for new offenses because of more intensive scrutiny and observation during aftercare) could not be explored because of insufficient data. Information to examine this issue, including the origin and circumstance of each new offense and technical violation (i.e., where the offense was committed, whether aftercare staff contributed to bringing charges), was never part of the routine data collection process.

This section of the analysis is organized in two parts. In the first part, the type and severity of the subsequent offenses are described. In the second part, the results of analyses to examine patterns in type and severity of offense committed over time and the possibility of a suppression effect by treatment on type and severity of recidivating offense are examined.

5.1 Description of Severity and Type of New Offense

Exhibit IV-7 presents information describing the severity and type of post-release adjudicated offenses committed by experimental and control group youths. As the exhibit demonstrates, of those youths in both groups who re-offended, the distributions of offenses by degree, or severity, were found to be similar. Of the 90 re-offenders in the experimental group, almost three-fourths (70%) were found to have committed misdemeanors or violations of probation, while approximately 14 percent were found to have committed more serious Class A and B felonies. Of the 104 re-offenders in the control group, 71 percent were found to have committed misdemeanors, or violations of probation, while approximately 7 percent were found to have committed more serious Class A and B felony offenses. Differences between the experimental and control groups on the severity of new offenses were found not to be statistically significant.

Examining new adjudicated offenses by offense type also shows strong similarities between the two groups. Offenses other than violations of probation committed by both experimental and control youths were most frequently property offenses (experimental: 29% and control: 28%). Drug-related offenses were the least common new offenses among the youths in the two groups (experimental: 2% and control: 3%) ranking below violent (experimental: 11% and control: 11%) and public order offenses (experimental: 8% and control: 11%). Combining type and severity of new offenses, Exhibit IV-7 demonstrates that misdemeanor/drugs/public order offenses were the most common new offense type among experimental (14%) and control youths (20%), followed by Class A or B property-related offenses for experimental youths and Class C property offenses for control youths.

5.2 Results of Analyses of Patterns in Type and Severity of Offenses over Time

This section addresses the remaining three research questions;

- What is the relationship between type of previous or committing offense and type of new recidivating offense?
- What is the relationship between level of previous or committing offense and level of new recidivating offense?

EXHIBIT IV-7
DEGREE AND TYPE OF NEW ADJUDICATIONS

CHARACTERISTIC	EXPERIMENTAL			CONTROL		
	NUMBER	PERCENT	VALID PERCENT	NUMBER	PERCENT	VALID PERCENT
DEGREE OF NEW OFFENSE						
Class A & B Felonies	13	8.1%	14.4%	7	4.0%	6.7%
Class C Felonies	13	8.1%	14.4%	23	13.2%	21.9%
Misdemeanor, Other	19	11.9%	21.1%	24	13.8%	22.9%
*Violation of Probation	45	28.1%	50.0%	51	29.3%	48.6%
None	70	43.8%	-----	69	39.7%	-----
TOTAL	160	100.0%	100.0%	174	100.0%	100.0%
TYPE OF NEW OFFENSE						
Violent	10	6.3%	11.1%	11	6.3%	10.5%
Property	26	16.3%	28.9%	29	16.7%	27.6%
Drug-Related	2	1.3%	2.2%	3	1.7%	2.9%
Public Order, Other	7	4.4%	7.8%	11	6.3%	10.5%
*Violation of Probation	45	28.1%	50.0%	51	29.3%	48.6%
None	70	43.8%	-----	69	39.7%	-----
TOTAL	160	100.0%	100.0%	174	100.0%	100.0%
COMBINED TYPE/SEVERITY						
Violent, Class A or B	4	2.5%	4.4%	2	1.1%	1.9%
Property, Class A or B	9	5.6%	10.0%	5	2.9%	4.8%
Drug, Class A or B	0	0.0%	0.0%	0	0.0%	0.0%
Public Order, Class A or B	0	0.0%	0.0%	0	0.0%	0.0%
Violent, Class C	3	1.9%	3.3%	5	2.9%	4.8%
Property, Class C	7	4.4%	7.8%	13	7.5%	12.4%
Drug, Class C	2	1.3%	2.2%	2	1.1%	1.9%
Public Order, Class C	1	0.6%	1.1%	1	0.6%	1.0%
Violent, Misdemeanor	3	1.9%	3.3%	2	1.1%	1.9%
Property, Misdemeanor	3	1.9%	3.3%	3	1.7%	2.9%
Drugs/Public Order, Misdemeanor	13	8.1%	14.4%	21	12.1%	20.0%
*Violation of Probation	45	28.1%	50.0%	51	29.3%	48.6%
None	70	43.8%	-----	69	39.7%	-----
TOTAL	160	100.0%	100.0%	174	100.0%	100.0%

* 2 Re-offenders with status offenses are included with technical violations (1 experimental, 1 control)

- What is the relationship between overall severity indices for previous and committing offenses and the same indicators for new recidivating offense?

In looking at patterns in type and severity of offense over time, these analyses examined the possibility of a suppression effect of either type of offense or severity as a result of the boot camp experience among youth who committed new offenses as their recidivating incident.

Type of Offense

When assessing the level of association between type of prior or committing offense and subsequent offenses for youth who originally committed violent, property, or drug-related offenses, only one significant association was found for the whole group. There was a statistically significant, moderate, positive association between having committed a prior property offense and the recidivating offense being a violent offense ($r = .23$, $p = .03$, $N = 89$). This indicates that youth whose prior offense was a property offense were more likely to commit a violent offense than all other kinds of offenses for their recidivating offense. While it is difficult to determine if there might be suppression of offense occurring as a result of treatment (because level of offense is not considered in that analysis), the positive association between prior property offenses and new violent offenses seems to indicate an enhancement of offense severity post-treatment.

When the treatment groups were examined separately, there were no significant associations for the control group. For the experimentals, however, a significant link between prior property offenses and new violent offenses persisted ($r = .36$, $N = 45$, $p = .015$). This suggests enhancement of the severity of the offense after treatment for experimentals.

Level of Offense

One key indicator of a suppression effect of treatment would be a significant decrease in level of subsequent offenses when compared to prior or committing offenses. Examination of the association between levels of offenses over time indicated no systematic association, either positive or negative, between level of prior/committing offense and level of subsequent offense.

Indices of Severity of Offense

Based on the separate analyses of types of offenses and levels of offenses there was only ambiguous evidence of suppression. In looking at correlations between an indicator that combined degree and level of indices for prior offense, committing offense, and recidivating offense for the group as a whole and for the experimentals alone, moderate positive significant

associations between the severity of the committing offense and the severity of the new offense (total group: $r=.23$, $N=76$, $p=.05$; experimentals: $r=.34$, $N=38$, $p=.04$) were found. No significant associations between previous offense severity and recidivating new offense severity were found in the separate analyses of the control group.⁹

In summary, there was no support for offense suppression occurring as a result of the EYC program or the treatment received by the control group. These conclusions, however, were based on very small sample sizes and only on the first offense after release. Further analyses of later offenses may indicate a long-term suppression effect.

6. POSITIVE OUTCOMES OF EYC AND RECIDIVISM

In this section, the relationship between one indicator of program success, educational improvement, and recidivism is examined. Youth were considered to have improved educationally if there was one grade or more improvement in overall averages for reading, math, language, or spelling. Youth who did not improve or showed a negative change were grouped together for the analysis. The crosstabulations between educational improvement and recidivism indicate no significant association. This suggests that youth who show educational improvement during EYC were no more or less likely to recidivate than youth who did not show educational improvement during EYC.

7. CONCLUSIONS

These analyses demonstrated that there was no overall recidivism differences in EYC and control youth. The only difference noted was that EYC youth tended to recidivate somewhat faster than did the controls, beginning approximately three months after release. It is possible that special attention paid to EYC youth in the period three to six months after release from the boot camp phase might be helpful. This appears to be a particularly vulnerable period for them.

These analyses also provide no indications of a suppression effect of treatment on level or type of subsequent offense. Information concerning the timing and type of offenses following the first recidivating offense would allow further testing for the presence of a suppression effect of treatment on number or type of recidivating offenses.

Further research should incorporate a detailed post-release contextual analysis. Given that the significant background factors explained so little of the variation in recidivism for either the EYC youth or the control group, it is possible that a larger part of the variation in recidivism might be explained by the context of the youth at the time of the recidivism. There is very little

information currently about the post-release activities of either group. Further research should also continue to follow youth to determine if suppression of number or type of subsequent offenses occurs following EYC participation. Increased information concerning the post-release context of the youth and their activities subsequent to their first post-release incident may reveal patterns of recidivism that would yield more substantive policy recommendations.

ENDNOTES

1.

Logistic Regression Coefficients Predicting Recidivism (N=334)							
Variable	B	S.E.	Wald	df	Sig	R	Exp(B)
Experimental Youth	-.1685	.2223	.5748	1	.4483	.0000	.8449
Constant	.4199	.1550	7.3397	1	.0067		

Cox Regression Coefficients Predicting Recidivism (N=334)							
Variable	B	S.E.	Wald	df	Sig	R	Exp(B)
Experimental Youth	.5009	.2423	4.2723	1	.0387	.0330	1.6502
Time * Experimental Youth	-.0715	.0319	5.0202	1	.0251	-.0380	.9310

2. The bivariate comparisons of control and experimental youth were repeated because the analysis sample is slightly different from the whole sample compared in Chapter 3.

3.

Logistic Regression Coefficients Predicting Recidivism (N=275)							
Variable	B	S.E.	Wald	df	Sig	R	Exp(B)
Experimental Youth	-.2676	.2616	1.0464	1	.3063	.0000	.7652
Attending School	-.1220	.3496	.1218	1	.7271	.0000	.8852
Living with both parents	-.5794	.3504	2.7347	1	.0982	-.0441	.5602
Moderate alcohol problems	.2665	.2546	1.0953	1	.2953	.0000	1.3054
# Prior delinquencies	.0943	.0699	1.8214	1	.1771	.0000	1.0989
Placed out of home	-.5566	.3437	2.6224	1	.1054	-.0406	.5732
Report of abuse/neglect	-.4633	.3573	1.6820	1	.1947	.0000	.6292
Constant	2.0336	.9019	5.0843	1	.0241		

Cox Regression Coefficients for Recidivism (N=275)							
Variable	B	S.E.	Wald	df	Sig	R	Exp(B)
Experimental Youth	.5136	.2834	3.2840	1	.0700	.0285	1.6713
Attending School	-.0745	.2149	.1203	1	.7287	.0000	.9282
Living with both parents	-.4837	.2571	3.5392	1	.0599	-.0312	.6165
Moderate alcohol problems	.1608	.1682	.9140	1	.3391	.0000	1.1745
Placed out of home	-.3230	.2026	2.5408	1	.1109	-.0185	.7240
# Prior delinquencies	.0581	.0403	2.0724	1	.1500	.0068	1.0598
Report of abuse/neglect	-.4349	.2087	4.3417	1	.0372	-.0384	.6473
Time*Experimental youth	-.0684	.0360	3.8088	1	.0510	-.0338	.9339

4. In fact, when 19 of the youth who did not complete the EYC program were included in the analyses, the difference in the way time affects the treatment groups grew stronger. For overall recidivism, the size of the effect of the time-by-treatment group interaction increases and its significance level decreases from $p=.05$ to $p=.01$.

Cox Regression Coefficients for Recidivism Including 19 of 25 Excluded Experimental Youth (N=294)							
Variable	B	S.E.	Wald	df	Sig	R	Exp(B)
Experimental Youth	.6562	.2644	6.1573	1	.0131	.0487	1.9274
Attending School	-.0168	.2108	.0064	1	.9364	.0000	.9833
Living with both parents	-.4831	.2437	3.9294	1	.0474	-.0332	.6169
Moderate alcohol problems	.1876	.1603	1.3698	1	.2418	.0000	1.2064
Placed out of home	-.3877	.1902	4.1541	1	.0415	.0351	.6786
# Prior delinquencies	.0442	.0366	1.4580	1	.2273	.0000	1.0452
Report of abuse/neglect	-.3409	.2044	2.7812	1	.0954	-.0211	.7111
Time*Experimental youth	-.0817	.0333	6.0102	1	.0142	-.0479	.9215

5. Separate multivariate analyses of a new adjudicated offense or technical violation indicated that there were no differences between the treatment groups in overall probability of these incidents. Moreover, the time-by-treatment interaction was not significant when the types of violations are analyzed separately. This suggests that the difference in overall recidivism is driven by moderate group differences in timing of the two offense types. See Appendix for detailed statistical output.

6. In order to develop the most parsimonious models and to determine which variables made independent significant contributions to an understanding of why some youth recidivated and others did not, we used a forward selection mechanism was used in the logistic regressions. This mechanism examines the independent effects of each variable on the fit of the model to the data. This yields a set of variables which significantly contribute to the model.

7.

Logistic Regression Coefficients Predicting Recidivism (N=131)							
Variable	B	S.E.	Wald	df	Sig	R	Exp(B)
Severe disciplinary problems at home	1.0480	.3636	8.3057	1	.0040	.1864	2.8519
Constant	-.4290	.2428	3.1208	1	.0773		

8. Additional separate analyses of new offenses and violations of probation indicated that there was no significant relationship between program completion and committing a new offense or between program completion and committing a violation of probation. In addition, analyses of time spent in EYC indicated that youth who violated probation spent about one-half week more at EYC than did youth who did not violate probation (either had no new incident or a new offense). Analyses assessing the relationship between participation in certain activities during aftercare and committing a new offense or a violation of probation indicated that:

- Youth living away from home during aftercare were more likely to commit new offenses than a VOP or no recidivism
- Youth living at home during aftercare were more likely to commit VOPs than new offenses or no recidivism
- Youth attending school or working on their GED certificates were more likely to commit VOPs rather than new offenses or no offenses .

See Appendix for statistical tables reporting these results.

9. Coding for these indices involved combining level and type of offense to produce the following index of severity:

01=Violent, Felony 1 or Felony 2
 02=Property, Felony 1 or Felony 2
 03=Drugs, Felony 1 or Felony 2
 04=Other, Felony 1 or Felony 2
 05=Violent, Felony 3 or Felony 4
 06=Property, Felony 3 or Felony 4
 07=Drugs, Felony 3 or Felony 4
 08=Other, Felony 3 or Felony 4

09=Violent, Misdemeanor
10=Property, Misdemeanor
11=Drugs, Misdemeanor
12=Other, Misdemeanor

APPENDIX ADDITIONAL ANALYSES ON RECIDIVISM

1. Baseline Analyses of New Offenses and Technical Violations Separately

Results of the baseline analyses of each type of of recidivating offense, new adjudicated or technical violation, follow:

Logistic Regression Coefficients Predicting A New Adjudicated Offense (N=334)							
Variable	B	S.E.	Wald	df	Sig	R	Exp(B)
Experimental Youth	-.1396	.2404	.3381	1	.5609	.0000	.8696
Constant	-.7985	.1639	23.7456	1	.0000		

Cox Regression Coefficients for A New Adjudicated Offense (N=334)							
Variable	B	S.E.	Wald	df	Sig	R	Exp(B)
Experimental Youth	.4791	.3204	2.2358	1	.1348	.0150	1.6147
Time * Experimental Youth	-.0635	.0373	2.8905	1	.0891	-.0291	.9385

Logistic Regression Coefficients Predicting A Violation of Probation (N=334)							
Variable	B	S.E.	Wald	df	Sig	R	Exp(B)
Experimental Youth	-.1358	.2389	.3228	1	.5699	.0000	.8730
Constant	-.7718	.1630	22.4057	1	.0000		

Cox Regression Coefficients for A Violation of Probation (N=332)							
Variable	B	S.E.	Wald	df	Sig	R	Exp(B)
Experimental Youth	.3614	.3411	1.1227	1	.2893	.0000	1.4354
Time * Experimental Youth	-.0485	.0435	1.2431	1	.2649	.0000	.9527

2. Multivariate Analyses of New Offenses and Technical Violations Separately

Comparisons of experimental and control group recidivism controlling for group differences for new offenses and technical violations separately follow:

Logistic Regression Coefficients for A New Adjudicated Offense (N=275)							
Variable	B	S.E.	Wald	df	Sig	R	Exp(B)
Experimental Youth	-.2259	.2922	.5975	1	.4395	.0000	.7978
Attending School	.3276	.3993	.6732	1	.4119	.0000	1.3877
Living with both parents	-.4478	.4303	1.0831	1	.2980	.0000	.6390
Moderate alcohol problems	.2048	.2842	.5377	1	.4634	.0000	1.2317
# Prior delinquencies	.0440	.0720	.3737	1	.5410	.0000	1.0450
Placed out of home	-.5469	.3468	2.4873	1	.1148	-.0394	.5787
Report of abuse/neglect	.2244	.3886	.3335	1	.5636	.0000	1.2516
Constant	-.8236	.9286	.7867	1	.3751		

Cox Regression Coefficients for A New Adjudicated Offense (N=275)							
Variable	B	S.E.	Wald	df	Sig	R	Exp(B)
Experimental Youth	.4404	.3977	1.2264	1	.2681	.0000	1.5533
Attending School	.2662	.3507	.5761	1	.4478	.0000	1.3050
Living with both parents	-.5667	.3847	2.1706	1	.1407	-.0154	.5674
Moderate alcohol problems	.2515	.2494	1.0173	1	.3132	.0000	1.2860
# Prior delinquencies	.0531	.0600	.7835	1	.3761	.0000	1.0545
Placed out of home	-.5472	.2925	3.4985	1	.0614	-.0455	.5786
Report of abuse/neglect	-.1219	.3335	.1337	1	.7146	.0000	.8852
Time*Experimental youth	-.0551	.0416	1.7589	1	.1848	.0000	.9464

Logistic Regression Coefficients for A Violation of Probation (N=275)							
Variable	B	S.E.	Wald	df	Sig	R	Exp(B)
Experimental Youth	-.1577	.2805	.3160	1	.5740	.0000	.8541
Attending School	-.3472	.3501	.9839	1	.3212	.0000	.7066
Living with both parents	-.0912	.3848	.0561	1	.8127	.0000	.9129
Moderate alcohol problems	.0546	.2711	.0405	1	.8405	.0000	1.0561
# Prior delinquencies	.0951	.0691	1.8899	1	.1692	.0000	1.0997
Placed out of home	.1340	.3487	.1477	1	.7008	.0000	1.1434
Report of abuse/neglect	-.7401	.3439	4.6307	1	.0314	-.0882	.4771
Constant	.3698	.8654	.1825	1	.6692		

Cox Regression Coefficients for A Violation of Probation (N=273)							
Variable	B	S.E.	Wald	df	Sig	R	Exp(B)
Experimental Youth	.5313	.4061	1.7118	1	.1907	.0000	1.7012
Attending School	-.2980	.2749	1.1749	1	.2784	.0000	.7423
Living with both parents	-.2661	.3226	.6801	1	.4095	.0000	.7664
Moderate alcohol problems	.0692	.2264	.0934	1	.7599	.0000	1.0716
# Prior delinquencies	.0877	.0532	2.7165	1	.0993	.0287	1.0917
Placed out of home	-.0161	.2866	.0031	1	.9553	.0000	.9841
Report of abuse/neglect	-.7380	.2669	7.6443	1	.0057	-.0805	.4781
Time*Experimental youth	-.0724	.0552	1.7205	1	.1896	.0000	.9302

V. DEMONSTRATION COST ANALYSIS

V. DEMONSTRATION COST ANALYSIS

A documentation and analysis of costs associated with the Mobile boot camp initiative was conducted as a preliminary step to presenting cost-effectiveness measures of the boot camp intervention, compared with alternative sentencing options and settings in Mobile. The objective is to document demonstration costs on the basis of available cost and resource data over the course of the project to date, from October 1991 through September 1994. The chapter is structured in accordance with the following framework:

- Overview of the methodology
- Total demonstration costs to date
- Unit cost calculations
- Comparative cost analysis.

The analyses of the boot camp demonstration costs presented herein are based on data compiled and supplied by the Boys and Girls Clubs of Greater Mobile, Alabama.

1. OVERVIEW OF THE METHODOLOGY

The objective of the cost and resource analysis is to develop a framework by which to compare the relative costs of providing services to participating experimental and control group during confinement or on probation, and in aftercare following release. Two steps are involved: documenting total costs and developing unit cost calculations.

1.1 Document Total Demonstration Costs to Date

The initial step in the process is to document and to present the total expenditures to date associated with the boot camp demonstration in Mobile, as supplied by the Boys and Girls Clubs of Greater Mobile. These costs accrued over a 36-month period from October 1991 through September 1994—the month during which the site visit for this report was conducted—and includes all youth in the residential phase from the initial study cohort through cohort 22. These total costs are presented in Section 2 of this chapter.

1.2 Develop Unit Cost Calculations

Once total program costs are identified, unit cost calculations can be developed. These costs form a foundation for comparing the relative costs of alternative commitment options in Mobile, Alabama, including boot camp for experimental youth and other institutional confinement settings or probation for control youth. Two critical unit cost measures can be

calculated: cost per youth per day and cost per offender. These critical unit cost estimates are presented in Section 3.

1.3 Limitations of the Data

The analysis is based on cost inputs as they were supplied by the Executive Director of the Boys and Girls Clubs of Greater Mobile, and results in adequate gross estimates for comparison purposes. While *actual* boot camp residential and aftercare costs are used to develop unit cost measures for experimental youth, the cost analysis for control youth placements relies on average costs for the overall DYS and probation populations during the previous year. Data on the actual costs of serving the sample of control youths participating in this study were not available. Therefore, while an attempt was made to ensure that measures used for comparison purposes are parallel in construction—in terms of cost inclusions and exclusions—it is difficult to ascertain the true extent of equivalence.

2. TOTAL DEMONSTRATION COSTS TO DATE

Total demonstration costs to date consist of the sum of costs associated with providing services to youths in the residential setting, and costs associated with providing aftercare and other youth monitoring services following release. The following sections document the total costs of the demonstration over a 36-month period from October 1991 through September 1994, a period which includes all youths in the residential phase through cohort 22.

2.1 Environmental Youth Corps Boot Camp

As described in earlier chapters, the Environmental Youth Corps Boot Camp occupies a single structure within the confines of the Strickland Youth Center, with which the boot camp shares vital services and facilities (e.g., food services). As a residential facility, each participating youth was provided food, housing, bedding, and uniforms for the duration of his stay. On-site staff consist of drill instructors, a Life Skills Coordinator, Adventure Therapy Counselors, an Outreach Coordinator, and facility monitoring staff. Additional expenses were incurred for equipment, tools, materials and supplies required for day-to-day facility operation and maintenance.

Exhibit V-1 presents the total costs associated with operation of the Environmental Youth Corps Boot Camp from October 1991 through September 1994. As the exhibit demonstrates, total costs amounted to approximately \$1,772,557 over the 36-month period. Approximately

EXHIBIT V-1
EYC BOOT CAMP - TOTAL COSTS TO DATE (10/91 - 9/94)

COST CATEGORY	VALUE	PERCENT
Staff Salaries and Benefits	\$1,259,545	71.1%
Physical Space	\$182,430	10.3%
Rent	(\$42,371)	
Utilities	(\$7,862)	
Space Improvements/Modifications	(\$2,186)	
Maintenance	(\$9,404)	
Telephone	(\$16,031)	
Insurance and Taxes	(\$104,576)	
Beds and Uniforms	\$68,201	3.8%
Food	\$780	0.0%
Equipment and Tools	\$111,719	6.3%
Materials and Supplies	\$149,882	8.5%
TOTAL	\$1,772,557	100.0%

three-fourths of these costs (\$1,259,545, 71.1%) are accounted for as staff salaries and benefits, while approximately 10 percent are costs associated with use of the physical space (\$182,430).

2.2 EYC Aftercare

As described in earlier chapters, the delivery of aftercare services to participating youths was accomplished by the Boys and Girls Clubs of Greater Mobile through its relationships with a number of community partners, who have provided benefits and services at no cost to the demonstration. Aftercare services are provided on Monday evenings at the R.V. Taylor Boys and Girls Club of central Mobile through the Mobile Housing Board, which has also made available to boot camp graduates three other Boys and Girls Club sites in the local community. The Mobile Optimists and Kiwanians have provided continuing financial support to the operating budgets of the participating club locations.

Exhibit V-2 presents the total costs associated with the provision of aftercare services through the period ending September 1994. As the exhibit demonstrates, total costs for the provision of aftercare services amounted to \$122,283. Approximately two-thirds of total aftercare costs are accounted for in professional services (\$85,315, 69.8%), including drug/alcohol treatment, a phonics instructor, and a nurse practitioner. No costs for non-demonstration personnel or for the use of physical space accrued to the demonstration, and estimates of their value were not available for this report.

EXHIBIT V-2 EYC AFTERCARE - TOTAL COSTS TO DATE (10/91 - 9/94)		
COST CATEGORY	VALUE	PERCENT
Staff Salaries and Benefits		
Demonstration Staff	\$18,211	14.9%
Non-Demonstration Staff ¹	\$0	0%
Physical Space ²	\$0	0%
Rent		
Utilities		
Space Improvements/Modifications		
Maintenance		
Telephone		
Insurance and Taxes		
Food	\$4,842	4.0%
Materials and Supplies	\$13,915	11.4%
Services	\$85,315	69.8%
Drug/Alcohol Treatment	(\$32,500)	
Phonics Instructor	(\$32,813)	
Nurse Practitioner	(\$20,002)	
TOTAL	\$122,283	100.0%
¹ The demonstration received labor services in-kind from the participating Boys and Girls clubs which should be enumerated and included; however, cost inputs were not available for analysis. ² The demonstration received the benefits of facility use in-kind from the participating boys and girls clubs which should be enumerated and included; however, cost inputs were not available for analysis.		

2.3 Total Demonstration Costs to Date

Total demonstration costs consist of the sum of operations costs associated with the Environmental Youth Corps Boot Camp and the EYC Aftercare program over the 36-month period of analysis. These costs amount to \$1,894,840, with residential boot camp costs accounting for approximately 94 percent (\$1,772,557) of total costs, and aftercare costs accounting for approximately six percent (\$122,283).

3. UNIT COST CALCULATIONS

Using costs available to this point, two critical unit cost measures can be calculated: cost per youth per day and cost per offender. The cost per day can be defined as the total cost of providing services to an individual youth on a daily basis, and can be calculated to reflect residential and aftercare services separately. The cost per day is a function of the average total number of youths being served over the measured period. The cost per offender can be defined as the total cost of providing services to an individual youth over the full program duration, or his entire length of stay. Together, the two measures provide a useful basis for comparing the relative costs of providing services in boot camp as opposed to alternative placements.¹

3.1 Residential Services

The EYC boot camp features a bed capacity of approximately 32 youth on a given day, with an average term of confinement lasting three months, or approximately 93 days, for the typical youth. Over the 30-month period of analysis from April 1992 through September 1994, the boot camp was operational for approximately 898 total days. The following sections present unit cost measures on the basis of total demonstration cost estimates presented earlier. These measures appear in Exhibit V-3.

¹ The cost per day measure is useful in its sensitivity to labor intensity and marginal costs, while the cost per offender measure accounts for duration of service; thus, one program may have a higher cost *per day* than another as a consequence of higher staff-to-offender ratios, yet have a lower cost *per offender* due to a shorter duration of services.

**EXHIBIT V-3
RESIDENTIAL COST MEASURES**

COST ESTIMATES	INPUTS			MEASURES	
	Total Costs	Total Operational Days	Rated Bed Capacity	Cost Per Youth Per Day	Cost Per Offender ¹
TOTAL DEMONSTRATION COSTS	\$1,772,557	898	32	\$61.68	\$5,736.24

¹ Based on estimated term of confinement of 93 days.

Cost Per Day

On the basis of total demonstration costs attributed to operation of the EYC boot camp, the average cost per youth per day amounts to \$61.68. This cost assumes the program operates at full capacity.² Based on total operating days over the 30-month period, the boot camp is costing a total of approximately \$1,974 per day to operate.³

Cost Per Offender

Using daily per-youth cost measures, the total estimated costs of serving a single youth for the entire term of confinement can be calculated. As Exhibit V-3 demonstrates, on the basis of an estimated 93-day average term of confinement for the typical boot camp graduate, the average total cost of confining a single youth in the EYC boot camp amounts to approximately \$5,736.

3.2 Aftercare Services

Measuring the costs associated with providing aftercare services to participating youths is considerably less precise because of fluctuations in daily rates of attendance (youths actually served per day); because daily attendance figures were not routinely maintained by the project, the only reasonable method for estimating unit costs is to base the estimate on the "enrolled" population, or the total youth for whom aftercare services are available at any given time given anticipated inflows from boot camp and outflows as a consequence of graduation. Over the period of analysis, the assumed daily population enrolled in aftercare is approximately 54 youths,

² This assumption is made in order to make costs comparable to the available information on secure confinement costs.

³ These measures are based on total demonstration cost estimates including start-up or development costs, which may be non-recurring. No separate estimates of these costs were available.

based on an assumed duration of services of 180 days. The following sections present unit cost measures on the basis of demonstration cost estimates for aftercare services presented earlier. These measures appear in Exhibit V-4.

EXHIBIT V-4 AFTERCARE COST MEASURES					
COST ESTIMATES	INPUTS			MEASURES	
	Total Costs ¹	Total Operational Days	Average Enrolled Population	Cost Per Youth Per Day	Cost Per Offender ²
DIRECT SERVICE COSTS	\$122,283	808	54	\$2.80	\$504.47
¹ These costs result in somewhat understated measures because the benefits of in-kind labor and facility use could not be enumerated and included.					
² Based on assumed aftercare term of 180 days.					

It is important to note that the following measures somewhat underestimate the true costs because in-kind labor and facility use, provided by the Boys and Girls Clubs without cost to the demonstration, could not be enumerated and included.

Cost Per Day Per "Enrolled" Offender

As presented earlier, the total costs of delivering aftercare services to participating youths over the period of analysis is \$122,283. The period of analysis consists of approximately 808 days over which aftercare services were available to participating boot camp graduates. On the basis of these inputs, the average cost of providing aftercare services per *enrolled* youth per day is \$2.80. Assuming an average daily enrolled population of 54 youth, aftercare services are costing approximately \$151 per day to provide.

Cost Per Offender

Using daily per-youth cost measures, the total estimated costs of serving a single enrolled youth over an approximately full term of aftercare can be calculated. As Exhibit V-4 demonstrates, on the basis of a 180-day average term of aftercare, the average total cost of providing aftercare services to a single enrolled youth amounts to approximately \$504. Coupled with the residential cost per offender measures presented previously, these measures are the basis for the comparative analysis, presented in the next section.

4. COMPARATIVE COST ANALYSIS

The objective of this section is to compare measures of the costs of providing services to youths participating in the experimental boot camp with those costs for control group youths, some of whom were confined while others were released on probation. Exhibit V-5 presents the cost per day and cost per offender measures for boot camp, juxtaposed with similar measures for control group youth in confinement or probation settings.

As the exhibit demonstrates, the cost of providing residential services per youth per day was lower for boot camp youth (\$61.68) than for the subset of control group youth (n=41) who were confined (\$75.00).⁴ However, the cost of providing aftercare services per youth per day was higher for boot camp youth (\$2.80) than for control group youth (\$1.91), whose aftercare consisted of probationary monitoring. For control group youth sentenced to probation (75.9%), however, the total average per day cost of \$1.91 is considerably lower than the weighted average daily cost of boot camp plus aftercare (\$22.86). The combined weighted average daily cost of

EXHIBIT V-5 UNIT COST FOR SERVICES IN ALTERNATIVE SETTINGS				
Per Day Costs	Experimental Group	Control Group		
	Boot Camp	Confinement	Probation	Weighted Total
Residential services	\$61.68	\$75.00	-	-
Aftercare services	\$2.80	\$1.91	\$1.91 ¹	-
Total program services ²	\$22.86	\$27.79	\$1.91	\$8.15 ³
Per Offender Costs	Experimental Group	Control Group		
	Boot Camp	Confinement	Probation	Weighted Total
Residential services	\$5,736.24	\$11,100.00	-	-
Aftercare services	\$504.47	\$515.70	\$515.70	-
Cumulative total	\$6,240.71	\$11,615.70	\$515.70	\$3,192.76
¹ These youth did not experience a term of confinement as part of the sentence, but were released directly to probation; probation is considered the equivalent of aftercare for this display.				
² Represents the weighted average cost per day per youth for services from entry into confinement through release from aftercare.				
³ Based on 170 control youth, of whom 41 were confined and 129 were released on probation.				

⁴ This daily cost was reported by Mobile as an average cost across various DYS state school settings.

providing treatment services to control youth was \$8.15, or significantly less than half the weighted average daily cost of providing treatment services to experimental youth (\$22.86).⁵

Using length of stay, or duration of services, inputs presented in Chapter III, cost per offender measures can be calculated and compared. As Exhibit V-5 demonstrates, based on an average term of confinement in boot camp of 93 days and an average length of aftercare enrollment of 180 days, the cumulative total treatment cost for experimental youth is approximately \$6,241 per youth. Among control group youth who were confined, based on a 148-day average term of confinement followed by a 270-day probationary period, the cumulative total treatment cost is approximately \$11,616. Among control group youth who were released immediately to probation, based on an average probationary period of 270 days, the total treatment cost is approximately \$516. The weighted average total treatment cost among control group youth as a whole is \$3,193, or approximately half the total treatment cost for experimental youth (\$6,241).

Thus, the total cost of treating experimental youth is considerably higher than the total cost of treating control youth, which is primarily a function of the fact that the overwhelming majority of control youth never experienced a term of residential confinement, but were released directly to probation. The costs of boot camp (residential and aftercare services) are substantially lower than the costs associated with other confinement settings in Mobile, but boot camp represents a considerable new cost in serving youth who would otherwise have been released on probation.

⁵ The combined weighted daily average cost is based on 170 control youth, of whom 41 were confined and 129 were released on probation. The average is influenced by the relative proportions of youth confined (24.1%) versus youth released on probation (75.9%) and represents the control group as a whole.

VI. SUMMARY OF KEY FINDINGS

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The preceding chapters described the EYC program implementation and operations, youth characteristics and program outcomes, analysis of recidivism factors, and demonstration costs. The purpose of this chapter is to summarize key findings of the evaluation to date. Conclusions on overall project performance and impact are considered premature at this time.

1. KEY FINDINGS RELATED TO EYC PROJECT DESIGN AND OPERATIONS

Selection. Originally, the selection process employed by the Mobile demonstration adhered to the criteria set forth by OJJDP. As the demonstration progressed, however, the EYC determined that the age range of 13-17 was too wide. Platoon and group cohesion suffered due to the inability of the cadets at each end of the age spectrum to work and live together. The EYC, therefore, targeted youth between of the ages of 13-15 for selection.

Youth were subjected to a battery of tests to determine eligibility for selection. The lack of standardized instruments to measure substance use was a concern among some EYC staff, as they had heard that youth were exaggerating their substance use to become ineligible for inclusion in the EYC selection pool.

Demonstration Residential Activities. The EYC residential treatment activities conform to the spirit of the demonstration as envisioned by the OJJDP. The residential phase is characterized by a highly structured military environment. The goal of the EYC is to promote life change, by "capturing the child's attention" using military discipline and methods (such as rigorous physical training) to teach cadets respect and the importance of teamwork. The residential phase is also distinguished by the individually-directed interventions, including educational activities, and activities designed to foster personal growth and development, as well as to gain support from parents via parenting classes. The tool for determining the individual's needs, and his progress, is the individualized treatment plan, which is developed and maintained employing case management.

Demonstration Aftercare Component. The original aftercare program, which was dispersed among seven Boys and Girls Clubs throughout Mobile, proved not to be workable. A revised, centralized program was implemented in December 1993, and is structured with weekly Monday night sessions designed to continue to develop cadets' educational, personal and physical growth. Wednesday night sessions provide supplemental activities. Saturday activities are designed to reenforce a sense of community service. The intensive phase of the aftercare

includes two weekly meetings with the Aftercare Probation Officer and the Aftercare, or Rotating, Drill Instructor (DI).

Project Funding and Resources. The reduction of federal funds had a negative impact on project implementation and operations. The reduction caused staff layoffs and created anxiety among staff, who feared being laid off. In response to the reduction in federal funding, EYC began to successfully solicit funds from state, county, and city sources.

Staff Turnover. There has been high turnover among EYC staff. The current EYC Director is the fourth in that position. Drill Instructors, the Aftercare Coordinator, and the Life Skills Coordinator positions have also had high turnover. Drill Instructors often leave for higher pay and use the boot camp to gain work experience. The Aftercare Coordinator and Life Skills Coordinator positions have lacked clear-cut requirements for their positions. As a result, the positions have been held by individuals with a wide range of skills and educational backgrounds.

Community and Family Support. EYC staff recognize that the community needs to "buy into" the concept of aftercare. Staff believe that a community-supported program will ultimately lead to cadet success. Family support is also important, but at the time of the site visit in October 1994, family involvement was not fully operational in the aftercare component.

Facilities. Locating facilities for permanent residential and aftercare facilities has proved to be a major challenge. The residential facilities are located in the "temporary" facilities adjacent to the SYC. Aftercare facilities have become centralized at the RV Taylor Center, which is operated by the Boys and Girls Clubs. The aftercare facility has become a point of contention, as the cadets and staff reportedly do not feel the atmosphere or activities are age (or maturity) appropriate for the cadets.

2. KEY FINDINGS RELATED TO PROGRAM OUTCOMES

This section synthesizes the interim findings from analyses presented throughout this report. All of the study's significant findings must be considered in the overarching context that the conceptual boot camp model was only *partially* implemented in Mobile, particularly with respect to the critical support services intended for youth during aftercare. Significant findings include the following:

- During the residential phase experimental youth made noteworthy progress in improving skills in reading, language, math, and spelling; during aftercare, nearly 70 percent of experimental youth returned to some form of schooling.

- The comparative rates of recidivism are favorable, with 28.1 percent of experimental youth adjudicated for new offenses compared to 31 percent of control youth. An additional 28.1 percent of experimental and 29.3 percent of control youth were adjudicated for technical violations, for an overall recidivism rate of 56.2 percent for experimental and 60.3 percent for controls.
- The comparability of the recidivism rates, however, carries a negative dimension. Although data are not available to indicate whether experimental youth would otherwise have been committed to DYS or placed on probation, the large proportion of control youth put on probation (73%) suggests that a significant proportion of experimental youth were confined for 3 months when they otherwise would have been placed on probation. To counterbalance that level of intrusion in a child's life, one would hope the boot camp experience would result in a much lower recidivism rate for experimental youth.
- There were no overall differences in EYC and control youth with regard to any form of recidivism. The only difference noted was the EYC youth tended to recidivate slightly faster than did the controls between three and six months after release. This suggests that special attention be paid to EYC youth during that particularly vulnerable period.
- Demographic, background, criminal history, and social history factors explained some difference in recidivism rates for EYC youth and control youth in separate analyses of the groups. As might be expected, discipline problems at home, drug problems, young ages at involvement, and gang involvement contributed to the increased probability of some form of recidivism for some of the subgroups. These differences, however, explained only a small amount of the variation in recidivism.
- Further research will be required to determine if the boot camp treatment has a suppression effect, i.e., if the number and type of subsequent offenses is reduced.
- Given the composition of the control group, in which the majority of youth were released on probation, cost outcomes indicate that boot camp is not cost effective; the cost per experimental youth (\$6,241) is considerably higher than the *weighted* cost per control youth (\$3,193), which represents the combined cost for both confined and probation youth.

The analysis of cost outcomes in Mobile very clearly demonstrates that the cost effectiveness of boot camp depends on the program's diversionary effect on alternative placements, with the critical factor being the relative diversion from more costly confinement. In Mobile, the cost of boot camp is significantly lower than the cost of confinement, but significantly higher than the cost of releasing youth on probation. Thus, the target population is absolutely crucial in the program's ultimate impact on long-term correctional costs. Assuming the comparable rates of

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post-release recidivism demonstrated in this study, programs that solely or overwhelmingly draw from a population of youth destined for traditional confinement settings are likely to result in a net decrease in correctional outlays, while programs that primarily draw from a population of youth destined for probation are likely to result in a net increase in correctional outlays.

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